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MANUFACTURING METHODS AND TECHNOLOGY PROJECT

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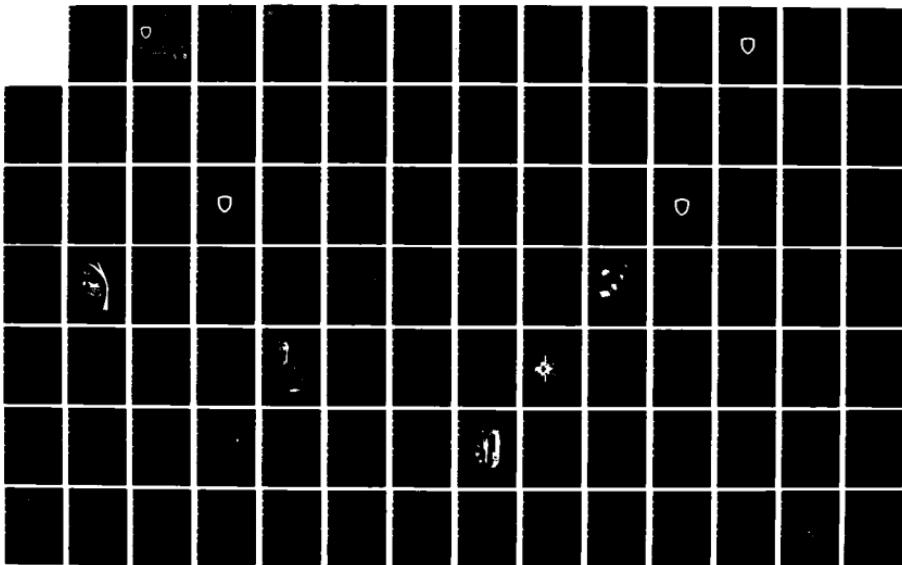
EXECUTIVE REPORT(U) ARMY INDUSTRIAL BASE ENGINEERING  
ACTIVITY ROCK ISLAND IL PRODUCTION ENGINEERING DIV

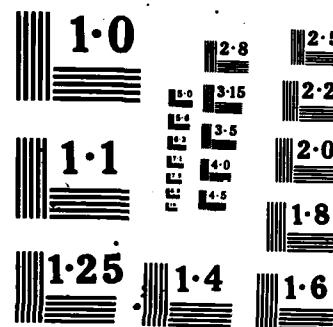
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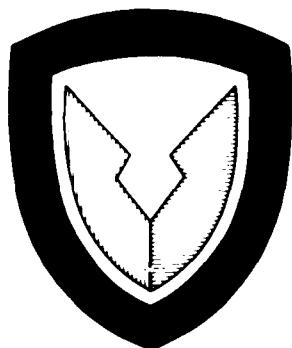


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U. S. ARMY  
MATERIEL COMMAND

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MANUFACTURING  
METHODS &  
TECHNOLOGY

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PROJECT EXECUTION  
REPORT

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SECOND CY85

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ELECTED  
JUN 05 1986  
S D

PREPARED BY

USA INDUSTRIAL BASE ENGINEERING ACTIVITY

PRODUCTION ENGINEERING DIVISION  
ROCK ISLAND, ILLINOIS 61299-7260

APRIL 1986

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## UNCLASSIFIED

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number)  This document is a summary compilation of the Manufacturing Methods and Technology Program Project Status Reports (RCS DRCMT-301) submitted to IBEA from AMC major Army subcommands and project managers. Each page of the computerized section lists project number, title, funding, and projected completion date. Summary pages give information relating to the overall AMC program. Status reports listed in this document include:		



DEPARTMENT OF THE ARMY  
US ARMY INDUSTRIAL BASE ENGINEERING ACTIVITY  
ROCK ISLAND, ILLINOIS 61299-7260

REPLY TO  
ATTENTION OF

AMXIB-PS

SUBJECT: Manufacturing Methods and Technology (MMT) Program Project  
Execution Report, Second Half CY85

SEE DISTRIBUTION

1. Reference DODI 4200.15, 24 May 1985, subject: Manufacturing Technology Program.
2. The Project Execution Report is a summary compilation of the MMT Project Status Reports (RCS DRCMT-301) submitted to IBEA from AMC Major Army Subcommands (SUBMACOM) and project managers. This document is used as a management tool for monitoring trends of the MMT Program and includes a discussion of the overall AMC Program. There are separate sections in the report showing projects that are new, active, and completed.
3. Due to a reorganization at HQ AMC and the publication of reference 1, the MMT Program and the administration of the program are in the process of change. New reporting forms are being identified and output documents are being revised to reflect the changes. In the interim, this edition of the Execution Report is similar in format to the previous editions; however, the narrative work status summary has been excluded. It is expected that the next Execution Report will be consolidated into the Manufacturing Technology Program Report which is a requirement of the DODI.
4. Persons who are interested in the details of an individual project should contact the Manufacturing Technology representative at the SUBMACOM. A list of those representatives is included in Appendix I to this report. The Project Officer for this task is Ms. Debbie O'Connor, AUTOVON 793-3682.

FOR THE DIRECTOR:

  
JAMES W. CARSTENS  
Chief, Production Engineering Division

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# DISCUSSION

## Background

The Army Manufacturing Methods and Technology (MMT) Program was established in 1964 as a part of the Army Production Base Support (PBS) Program. The MMT Program has goals of improving existing manufacturing technology, translating new technology into production line processes, and supporting the modernization and expansion of the military hardware production base. The program is governed by the provisions of AR 700-90, Chapter 3.

In May 1985, DODI 4200.15, Manufacturing Technology Program, was signed into effect. In August 1985, a reorganization at HQ AMC eliminated the office of the Deputy Chief of Staff for Manufacturing Technology as a separate organization. Both of these events are causing changes to be felt in the administration of the MMT Program. Input reports and procedures, as well as output reports, are being redefined. In the interim, this report represents the MMT execution status of projects during the transaction period. In this transaction report, the narrative work status and the project slippage have been deleted. It is expected that both will be reinstated in the future but will be based on the total MMT work effort rather than each fiscal year task.

## Composition of the Report

This MMT Project Execution Report provides the status of 516 active projects which have a total authorized cost of \$272.1 million. Total MMT program statistics of all the active projects are also included. The report is compiled, edited, and published for HQ AMC by the Production Engineering Division of the Army Industrial Base Engineering Activity (IBEA) in accordance with AR 700-90, paragraph 3-4j(1).

Distribution of this report is extended to Army materiel developers and users and to counterparts in the Navy and the Air Force. Inquiries on the detailed technical aspects of any individual project may be answered by the MMT Program representative of the action Command under which the project was completed or is being executed. Inquiries or suggestions concerning this report or other facets of the MMT Program may also be directed to the Production Engineering Division of IBEA.

The report is composed of three major sections:

- a. Projects Added 2nd Half, CY85 - A list divided by organization of all projects funded during the second half of CY85. Included is a narrative of the problem for each project.
- b. Final Status Reports Received During 2nd Half, CY85 - A list divided by organization of all projects for which final status reports were received during the second half of CY85.
- c. Summary Project Status Report - These reports are divided by organization and include a summary of funding by fiscal year for each active project.

Status Report Submissions

Figure 1 below summarizes the situation concerning delinquent status reports and final status reports without technical reports.

STATUS REPORT (RCS DRCMT 301) SUBMISSIONS

COMMAND	*301 REPORTS REQUIRED	*301 REPORTS SUBMITTED	NUMBER AND (%) OF DELINQUENT 301 REPORT	NUMBER OF FINAL 301 REPORTS	NUMBER OF TECH RPTS SUBMITTED W/FINAL STATUS REPORTS	NUMBER AND (%) OF DELINQUENT TECHNICAL REPORTS
AMETA	9	9	0 0%	1	N/A	N/A
DESCOM	14	10	4 24%	1	0	1 100%
LABCOM	33	19	14 35%	4	0	4 100%
TMDE	5	5	0 0%	5	0	5 100%
MTL	9	6	3 23%	0	N/A	N/A
TECOM	5	5	0 0%	0	N/A	N/A
AVSCOM	54	40	14 22%	9	0	9 100%
CECOM	40	40	0 0%	1	1	0 0%
MICOM	25	24	1 4%	2	0	2 100%
TACOM	54	38	16 28%	6	4	2 33%
AMCCOM (AMMO)	153	123	30 18%	19	6	13 68%
AMCCOM (WPNS)	112	109	3 2%	15	8	7 47%
TROSCOM	5	5	0 0%	0	0	0
<b>TOTAL</b>	<b>518</b>	<b>433</b>	<b>85 16%**</b>	<b>63</b>	<b>19</b>	<b>43 68%</b>

Figure 1

\*Does not include FY86 projects which were recently funded and which did not require a status report.

\*\*Delinquency rate reflects a one week extension of the cutoff date. Actual delinquency as of the regular cutoff date was 181 reports or 31%.

According to this figure, there was a 16% delinquency in receipt of status reports, or 85 reports not submitted by the cutoff date.

Accuracy of MMT summary information for management depends on a complete submission of all the project status reports for each Command. Any delinquency creates a void in the information presented in the compiled report. Therefore, steps are taken to remind the Commands of the regulatory requirements for the submission of these reports. In December 1985, a call letter was mailed out to each SUBMACOM. Enclosed with this letter was a computerized listing of the specific projects for which a status report was required for this reporting period. Also, phone call follow-up was made in March to remind the MSCs of the due date of March 14. When the additional steps were first taken in 1981, the delinquency rate dropped. However, since that time there has been no evidence of any additional, consistent improvement. During this period a delinquency rate of 16% was experienced. The significant changes that the program has undergone, as well as the 60% cut which has recently been experienced in the FY87 program, are felt to be the main factors for the increase in the delinquency rate. Delinquency and timeliness are areas that must be improved in order to insure a useful review of the progression of the MMT Program.

There has always been a requirement that a technical report be prepared for each project (i.e., each fiscal year of funding). The technical report is an accepted vehicle, and in some cases the only vehicle, for technology transfer. For this period, as noted in Figure 1, 63 final status reports were received. Sixty-eight percent, or 43 of these reports, did not have a technical report. This delinquency rate of 68% is even higher than the previous period's delinquency rate of 55%. This continued high rate, to a certain extent, is a reflection of the fact that 55% of the projects which were closed out were funded with R&D funds (FY83 and later). The significance of R&D is that each fiscal year of funding does not necessarily result in a deliverable for which a technical report is easily developed. In many cases, it is viewed and executed as a level of effort with technical report documentation developed at whatever point it is technically reasonable to do so, rather than automatically at the end of the expenditure of each FY of funding. With the redefinition of MMT procedures, attempts are being made to formulate a technical report policy which is sensitive to fiscal year level of effort, yet responsive to the need for tech transfer documentation prior to the overall completion of extended work efforts. In addition, future issues of this document which address delinquent technical reports will likewise use a different basis for calculation in order to reflect the change in the "normal" way of doing MMT business resulting from the R&D funding. The 63 projects for which final status reports were received during this period can be found in a separate section on page 29.

### Program Summary

Manufacturing Methods and Technology (MMT) projects and efforts are major elements of the Army's Manufacturing Technology (MANTECH) Program. AR 700-90 succinctly describes the MANTECH objective as the improvement of the industrial readiness and efficiency of the production base for Army materiel. Further defined objectives are stated in the Statement of Principles for the DOD Manufacturing Technology Program. This Statement, originating at the Deputy Under Secretary of Defense level, not only establishes ground rules for the Program but highlights the level of emphasis that the Program receives.

To attain the objectives described in the Statement of Principles, the Army, prior to FY83, funded discrete work units called "Projects" on a yearly basis. These projects, identified by a seven-digit number, contained work requests, which upon completion would result in an end product whose technical transfer could be effected. At times, in order to have a total work package which was implementable, (i.e., which could achieve the payback for which the work was funded) the scope was of such a magnitude that total funding in one fiscal year could be an inefficient use of resources.

In this event, the total work was multi-year funded, (i.e., be more than one project, each having a technically transferrable end product). These total implementable work units were called "Efforts". These efforts could consist of many projects or just be one project, depending on the amount of work required to achieve the implementable technical goal. Efforts are identified by a four-digit number which is the same as the last four digits of a project or projects which make up the effort.

For FY83 through FY85 the conversion from the Procurement Account to the R&D account will result in some administrative changes. An MMT "project" will, under R&D parlance, be considered a "task". Also, to accommodate the R&D obligational goals, these yearly funded tasks will likely become level of effort work rather than discrete, stand alone work units which result in end products whose technical transfer could be effected. Multi-year funding will probably become more prevalent in leading to the completion of an implementable work "effort".

A breakout of the active projects is shown in Figure 2. On a fiscal year basis, this chart shows there are 516 active "projects". However these 516 active projects constitute only 306 active technical work "efforts". Future reports will eliminate the misconceptions that each project (i.e. FY of funding) is a separate technical entity.

ACTIVE PROJECTS BY FISCAL YEAR

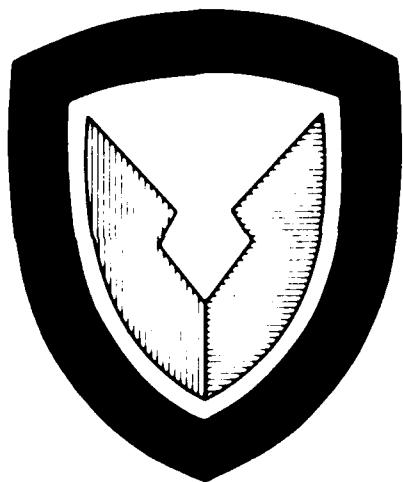
ORGANIZATION	76	77	78	79	80	81	82	83	84	85	86	TOTAL	
AMETA/DESCOM				1	1	1	2	4	0	3	5	7	24
LABCOM					1		3	3	0	3	14	12	36
MTL							1	1	1	2	3	5	13
TECOM							1	1	1	1	1	1	6
AVSCOM							2	6	4	17	16	10	55
CECOM					1	2	4	2	2	6	12	10	39
MICOM							1	0	2	10	10		23
TACOM							2	8	11	7	14	9	51
AMCCOM (AMMO)	1			1	1	2	7	18	9	35	45	30	149
AMCCOM (WEAPONS)	1				2	6	8	21	10	23	23	20	114
TROSCOM									1	2	3		6
<b>TOTAL</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>6</b>	<b>11</b>	<b>30</b>	<b>65</b>	<b>38</b>	<b>100</b>	<b>145</b>	<b>117</b>	<b>516</b>

2nd CY84	2	1	2	2	10	18	50	93	59	130	149	0	516
<b>TOTAL</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>10</b>	<b>18</b>	<b>50</b>	<b>93</b>	<b>59</b>	<b>130</b>	<b>149</b>	<b>0</b>	<b>516</b>

Figure 2

## **MMT PROGRAM**

**PROJECTS ADDED 2ND HALF, CY85**



PROJECTS ADDED IN 2ND HALF, CY85

AMETA

C 86 5052

ARMY ENGRG DESIGN HANDBOOKS F/PRODUCTION SUPPORT

TECHNICAL SCIENTIFIC AND ENGINEERING DATA IS CONTINALLY BEING GENERATED WITHIN THE ARMY AND NEEDS TO BE COLLECTED IN APPROPRIATE DOCUMENTS.

DESCUM

C 86 2002

LETTERKENNY EVAL ANALYSIS + PLANNING (LEAP) PROGRAM

THE LACK OF UP-TO-DATE MANUFACTURING AND PROCESSING TECHNOLOGY HAS RESULTED IN HIGHER OVERHAUL/REBUILD COSTS AND ALSO IN LIMITATIONS TO BOTH PRESENT AND FUTURE MISSION NEEDS THROUGHOUT THE DEPOT.

C 86 3001

POWER + INERTIA SIMULATOR (PAISI) COMBAT VEHICLE TESTING

THE TEST TRACK AT THE MAINZ ARMY DEPOT IS A PRIMARY BOTTLENECK IN THE REBUILD MISSION. ALTHOUGH THE TEST TRACK IS OVERLOADED AN INCREASE IN THE WORKLOAD IS PROJECTED.

C 86 6003

CORPUS CHRISTI ARMY DEPOT INTEGRATED MODERNIZATION PROGRAM

THE LACK OF STATE-OF-THE-ART MANUFACTURING AND PROCESSING TECHNOLOGY HAS RESULTED IN HIGHER OVERHAUL REBUILD COSTS AND IN LIMITATIONS TO BOTH PRESENT AND FUTURE MISSION NEEDS.

C 86 6100

ROBOTIC REPAIR OF PRINTED CIRCUIT BOARDS - PHASE III

MANUAL METHODS FOR REPAIRING MULTILAYER PRINTED CIRCUIT BOARDS ARE INEFFICIENT AND COSTLY. A RAPIDLY INCREASING REPAIR AND TEST WORKLOAD OF HIGH TECHNOLOGY PRINTED CIRCUIT BOARDS IS SCHEDULED FOR FUTURE SYSTEMS.

C 86 7004

AUTOMATED ENGINE BLOCK MACHINING

THE CURRENT METHOD OF MACHINING AND INSPECTING ENGINE BLOCKS IS SLOW AND LABOR INTENSIVE. BORING LARS ARE SET UP FOR EACH HOLE TO BE MACHINED AND ALL INSPECTION IS DONE BY HAND.

PRODUCTS ADDED IN 2ND HALF, CY85  
(CONTINUED)

C 86 7007

ENGINE CONTAINER SEALING-CAM

CURRENTLY ENGINE CONTAINERS ARE CLOSED AND TIGHTENED MANUALLY. IN ONE CASE THIS REQUIRES HAND TORSION 32 BOLTS THREE TIMES EACH IN A SPECIFIC SEQUENCE.

LABOUR

F 86 5119

PRECISION HIGH QUALITY X-RAY MASKS

VHSIC R AND D PROGRAMS WILL DEVELOP PROCESS FOR SUBMICRON HIGH SPEED SIGNAL PROCESSORS. POOR YIELD AND LACK OF PRODUCTION TYPE EQUIPMENT RESULTS IN VERY HIGH COST AND LOW RELIABILITY.

F 86 5162

EXJAM BATTERY MANUFACTURING TECHNOLOGY-PHASE III

PRESENT R AND D MODELS OF UNATTENDED EXPENDABLE JAMMER RESERVE POWER SUPPLY (UEJPS) ARE HAND MADE 1 LR 2 AT A TIME. UNLESS FABRICATION/ASSEMBLY ARE PRODUCTION ENGINEERED, LABOUR COSTS WILL MAKE THE BATTERY PROHIBITIVELY EXPENSIVE.

F 86 5174

AUTO SPUTTERING PROCESS CONTROL FOR ZNL

GAS MIXTURE, ZNL PURITY + SPUTTERING PARAMETERS ARE MANUALLY MONITORED USING A MASS ANALYZER. CORRECTIONS IN FLOW + DEPOSITION PROCESSES ARE SLOW AND PERFORMED AFTER OCCURRENCE.

F 86 5167

TUNABLE MILLIMETER WAVE INP GUNN SOURCES

TUNABLE MILLIMETER WAVE INP GUNN SOURCES ARE CURRENTLY HAND MADE IN THE LABORATORY BECAUSE THERE ARE NO PROCESSES FOR FABRICATION AND TESTING IN VOLUME.

F 86 5193

PROCESS ADJUSTMENTS FOR ENVIRON STRESS ON ELECT CIRCUIT METALS

METALS USED IN ELECTRICAL CIRCUITS ARE CORRODED BY THE ENVIRONMENT, SOME SUBSTITUTE MATERIALS ARE EXPENSIVE.

PROJECTS ADDDED IN 2ND HALF, CY85  
(CONTINUED)

F 86 5209

HIGH SPEED DIGITAL TO ANALOG CONVERTER (VHSIC)

THE RANGE OF RADARS AND THE SPEED OF DIRECT WRITE ELECTRON BEAM LITHOGRAPH ARE LIMITED BY THE AVAILABILITY OF HIGH SPEED, HIGH RESLUTION DIGITAL TO ANALOG CIRCUITS.

F 86 5248

ADVANCED WAFER IMAGING SYSTEM (VHSIC)

VHSIC REQUIREMENTS FOR RESOLUTION AND INTER-LEVEL ALIGNMENT ACCURACY CANNOT BE MET WITH CURKENT WAFER PATTERNING SYSTEMS. RESOLUTION OF 1.0 MICRUMETERS AND OVERLAY ALIGNMENT OF 0.1 MICRUMETER ARE NEEDED.

H 86 5251

AUTO SEM WAFER INSPECTION AND METROLOGY SYS (VHSIC)

HUMAN INTERPRETATION OF SCANNING ELECTRON MICROSCOPE IMAGES OF INTEGRATED CIRCUIT PATTERNS IS LABORIOUS AND PRONE TO ERROR.

F 86 5272

TAPE AUTOMATED BONDING (VHSIC)

PRESENT TAB PROCESSES ARE NOT COMPATIBLE WITH VHSIC CHIP I/O COUNTS, SMALL PAD SIZES AND COMPLEXITY.

H 86 5273

FIRST LEVEL PACKAGING AND INTERCONNECTIONS (VHSIC)

NEITHER THE GRID ARRAY CHIP CARRIER NOR THE PERIMETER CHIP CARRIER IS CURRENTLY VHSIC COMPATIBLE. THERE IS NO ADVANCED TECHNIQUES FOR THEIR MANUFACTURE.

F 86 5274

MULTICHIP PACKAGES (VHSIC)

MANUFACTURING FACILITIES ARE EXTREMELY LIMITED FOR THE PRODUCTION OF VHSIC COMPATIBLE MULTICHIP CERAMIC PACKAGES.

F 86 5281

E-BEAM AND X-RAY RESISTS (VHSIC)

THERE IS NO PRODUCTION SOURCE FOR E-BEAM OR X-RAY RESISTS FOR USE IN THE VHSIC INSERTIN PROGRAM. USE OF E-BEAM LITHOGRAPHY MACHINES BUILT UNDER VHSIC SPONSORSHIP WILL BE SEVERLY LIMITED IF THESE RESISTS ARE NOT COMMERCIALLY AVAILABLE.

PROJECTS ADDED IN 2ND HALF, CY85  
(CONTINUED)

MTL

M 86 5001

DIAPHRAGM TEST MACHINE FOR MLRS FLUIDIC GENERATOR

M445 FUZE FABRICATION IS EXPERIENCING 50 PERCENT REWORK. THIS REWORK IS A DIRECT RESULT OF BEING UNABLE TO ASSURE THE VIABILITY OF THE DIAPHRAGM OF THE GENERATOR OTHER THAN BY ACTUALLY ASSEMBLING IT INTO A COMPLETE GENERATOR.

M 86 5002

PATRIOT FUZE FLEX FIXTURE/ACCEPTANCE TEST LEVELS

OVERTESTING OF PATRIOT FUZE EAS DURING MANUFACTURING ACCEPTANCE TESTING IS CREATING THE POTENTIAL FOR FATIGUE FAILURES IN STOCKPILED PATRIOT MISSILES.

M 85 5013

M732A FUZE POWER SUPPLY LEAK TEST SET

ONE MILLION M732 FUZES IN STOCKPILE HAVE TENDENCIES FOR BATTERY AMPULES TO CORRODE. ELECTROLYTE LEAKAGE ULTIMATE DESTROYS THE FUZE PROX CAPABILITY. A COST EFFECTIVE RELIABLE MEAN OF SORTING FUZES WORLD-WIDE IS REQUIRED.

M 86 5013

M732A FUZE POWER SUPPLY LEAK TEST SET

ONE MILLION M732 FUZES IN STOCKPILE HAVE TENDENCIES FOR BATTERY AMPULES TO CORRODE. ELECTROLYTE LEAKAGE ULTIMATE DESTROYS THE FUZE PROX CAPABILITY. A COST EFFECTIVE RELIABLE MEAN OF SORTING FUZES WORLD-WIDE IS REQUIRED.

M 86 6350

MANUFACTURING TESTING TECHNOLOGY

DESTRUCTIVE AND CERTAIN CONVENTIONAL NON-DESTRUCTIVE TESTING TECHNIQUES ARE RESPECTIVELY UNSUITED AND INADEQUATE OR HARD TO BE ADAPTED TO ON-LINE PRODUCTION TESTING USAGE.

M 86 6390

PROGRAM IMPLEMENTATION AND INFORMATION TRANSFER

THE SUCCESS OF THE MMT PROGRAM IS VERY DEPENDENT ON WHETHER THE RESULTS OF MMT WORK GET IMPLEMENTED. THIS IN TURN IS DEPENDENT ON WHETHER INFORMATION CONCERNING THE MMT TECHNOLOGY IS MADE AVAILABLE AND USED BY CONCERNED PARTIES.

PROJECTS ADDED IN 2ND HALF, CY85  
(CONTINUED)

TECOM

C 86 5071

TECOM PRODUCTION METHODOLOGY ENGINEERING MEASURES

ARTILLERY, VEHICLE AND ELECTRONIC CONVENTIONAL TEST CAPABILITIES NEED TO BE UPGRADED TO PROVIDE MORE TIMELY ACCURATE TEST DATA FOR THE TEST AND EVALUATION PROCESS.

AVS COM

I 86 7384

COMPOSITE ENGINE GEARBOX HOUSING

CONVENTIONAL GEAR HOUSINGS CONSISTING OF MAGNESIUM EXHIBIT LOW MODULUS, LOW FATIGUE STRENGTH, AND SUSCEPTIBILITY TO CORROSION.

I 86 7416

ADVANCED TURBINE AIRFOIL CASTINGS FOR LONG LIFE

TURBINE AIRFOILS ARE DESIGNED TO A STRESS RUPTURE LIMIT WHETHER COOLED OR UNCOOLED. THIS LIMIT IS LOW DUE TO EQUIAXED CAST SUPERALLOY MATERIALS CURRENTLY USED AND THEIR INHERENT GRAIN BOUNDARY LIMITATIONS.

I 86 7417

LOW COST DISKS BY CAP

POWDER METAL DISKS FORM A SIGNIFICANT PART OF THE ENGINE COST DUE TO EXPENSIVE TOOLING/DIE REQUIREMENTS AND HIGH PRESSURE CONSOLIDATION EXPENSE.

I 86 7456

LOW COST TOOLING FOR AIRFRAME COMPONENTS

HIGH COST METAL TOOLING CONCEPTS OR EXPENSIVE AUTOCLAVE CURING APPROACHES HAVE BEEN USED WHICH RESULT IN EXTENDED CURE CYCLES AND POOR ENERGY CONSERVATION.

I 86 7472

SURFACE HARDENING GEARS BY LASER

HELICOPTER TYPE GEARS HAVE BEEN SUCCESSFULLY SURFACE HARDENED BY LASER. THE PROCESS NEEDS TO BE PRODUCTIONIZED AND EXPANDED FOR USE ON GEARS SUSCEPTIBLE TO HEAVY LOADS IN ORDER TO OBTAIN HIGHEST COST BENEFITS.

PROJECTS ADDED IN 2ND HALF, CY85  
(CONTINUED)

1 86 7473  
FIBER REINFORCED THERMOPLASTIC STRUCTURES

CURRENT AIRFRAME SECONDARY STRUCTURES ARE CONSTRUCTED FROM SHEET METAL OR THERMOSETTING COMPOSITES. SHEET METAL CONSTRUCTION REQUIRES MANY DETAIL PARTS AND LABOR, AND THERMOSETTING COMPOSITES REQUIRES EXPENSIVE STORAGE, FORMING AND CURING STEPS.

1 86 7474  
SINGLE CURE TAIL ROTOR

THE CURRENT METHOD OF CURING COMPOSITE TAIL ROTOR BLADES IS TO PRECURE EACH MAJOR DETAIL SEPARATELY AND THEN BOND THEM TOGETHER AS A FINAL ASSEMBLY. THIS APPROACH IS NECESSARY IN ORDER TO PROVIDE A STABLE ELEMENT FOR FORMING AND HOLDING NUMEX CURE.

1 86 7487  
ADVANCED CORROSION RESISTANT BEARINGS

CORROSION PRONE BEARINGS IN HELICOPTER ENGINE AND DRIVE TRAINS IS THE MAIN REASON FOR REPLACEMENT OF BEARINGS AT OVERHAUL.

1 86 7548  
EROSION PROTECTION FOR COMPRESSOR AIRFOILS

HARDFACE COATINGS APPLIED TO COMPRESSOR AIRFOILS SEVERELY DEGRADE FATIGUE PROPERTIES.

1 86 7549  
ECM OF T700 COMPRESSOR BLISKS

BLISK AIRFOILS ARE CURRENTLY ROUGH + FINISHED MACHINED WITH CONSIDERABLE PRODUCTION TIME SPENT IN ADDITION FOLLOWED BY HAND-BENCHING.

CECOM

2 86 3090  
GATWASP LIGHT EMITTING DIODE PACKAGING

THE PRESENT METHOD OF FABRICATION IS LOW VOLUME AND LABOR INTENSIVE. LEDs ADAPTABLE TO MILITARY SYSTEMS ARE AVAILABLE BUT INDUSTRY WILL NOT DEVELOP WITH ITS OWN FUNDS BECAUSE OF LIMITED PROCUREMENT.

PROJECTS ADDED IN 2ND HALF, CY65  
(CONTINUED)

2 86 3094

COMMUNICATIONS TECHNOLOGY TECHMOD FOR JTIDS

COMMUNICATIONS EQUIPMENT IS MANUFACTURED USING LABOR INTENSIVE, LOW VOLUME PROCESSES. MACHINES ARE OLD AND UNAUTOMATED. NEW METHODS, PROCESSES AND EQUIPMENT ARE NEEDED.

2 86 3108

CONTROL OF GASS BULE DIAMETER

THE MANUAL CONTROL OF LEC GASS SINGLE CRYSTAL BULE GROWTH RESULTS IN WIDE BULE DIAMETER VARIATIONS, WASTED MATERIAL, WASTED UNIFORMITY GRINDING LABOR AND IS A SOURCE OF DEFECTS.

2 86 3111

AUTOMATIC ADJUSTMENT OF MICROWAVE CIRCUITS

PRESENT METHODS FOR IMPEDANCE MATCHING ARE LABOR INTENSIVE. TECHNIQUES FOR AUTOMATIC ADJUSTMENT AND MATCHING INTERFACE CIRCUIT IMPEDANCES WILL BE ESTABLISHED.

2 86 3139

AUTOMATED INTEROVEN TRANSFER OF GLASS PREFORMS

DEWAR FABRICATION REQUIRES MUCH HAND LABOR AND MOVING MATERIALS FROM PROCESS TO PROCESS CAN INTRODUCE CONTAMINATION AND PRODUCT NONUNIFORMITIES.

2 86 5059

LINEAR RESONANCE COOLERS - PHASE I (NVEUL)

SECOND GENERATION FLIR'S WILL EMPLOY MAGNETIC SUSPENSIONS IN THE CRYOGENIC COOLERS. MAINTAINING CRITICAL SUSPENSION TOLERANCES IN PRODUCTION WILL REQUIRE DEVELOPING EXTENSIVE QUALITY CONTROL PROCEDURES.

2 86 5180

MMT FOR METAL DEWAR AND UNBUNDED LEADS (NVEUL)

THE GLASS WIRE BUNDED CONNECTIONS ARE MADE BY HAND WHICH IS A TEDIOUS AND EXPENSIVE PROCESS. THE GLASS STEM IS HAND FASHIONED AND IS PRONE TO DAMAGE.

2 86 7030

LASER POLARIZERS (NVEUL)

US SOURCES HAVE NOT BEEN ABLE TO CONTROL IMPORTANT PARAMETERS IN MANUFACTURING HIGH POWER DENSITY LASER POLARIZERS. THESE POLARIZERS MAKE THE SHIELDED ENERGY FROM A LASER TARGET DESIGNATOR UNIDIRECTIONAL.

PROJECTS ADDED IN 2ND HALF, CY85  
(CONTINUED)

2 86 9289

AUTOTEST OF MICROWAVE DEVICE WAFERS (CAM)

THE NEED TO WAIT UNTIL PACKAGING IS COMPLETE BEFORE TESTING MICROWAVE DEVICES (DIODES, TRANSISTORS) RUNS UP THE COST BECAUSE PACKAGING COST IS APPRECIABLE. BUT TESTING OF DEVICE CHIPS CANNOT NOW BE DONE.

2 86 9290

AUTOMATIC MICROWAVE SEMICONDUCTOR DEVICE TESTING

PRESENT PRODUCTION TESTING METHODS FOR HIGH FREQUENCY DEVICES ARE INADEQUATE. DEVICE CHARACTERIZATION IS SLOW AND EXPENSIVE, AND IS MOSTLY DONE BY HAND. SMALL SIGNAL READINGS CAN BE TAKEN BUT NOT LARGE SIGNAL READINGS.

MICLM

3 86 1066

SEMIADDITIVE SINGLE + MULTILAYER CIRCUITRY

THICK FILM CIRCUITRY USES THE SCREEN AND FIRE PROCESS ON CERAMIC SUBSTRATES. A SEMIADDITIVE FINE-LINE PROCESS, ELECTROLESS COPPER PLATING, USED ON FIBERGLASS AND CERAMIC SUBSTRATES WILL PROVIDE BETTER FINE-LINE AND A COST REDUCTION.

3 do 1095

AUTOMATIC SEALING OF HYBRID PACKAGES

HYBRID CIRCUIT ASSEMBLIES FOR MILITARY USE REQUIRE HERMATIC SEALING WHICH IS ACCOMPLISHED BY SOLDERING OR WELDING. BOTH TECHNIQUES REQUIRE AN OPERATOR, INVOLVING LABOR INTENSIVE HANDLING AND SET UP ERRORS.

3 86 1120

DETECTOR GRADE CADMIUM SULFIDE

CURRENTLY AVAILABLE PROCESSES FOR PRODUCING CADMIUM SULFIDE CRYSTALS OFTEN RESULT IN SMALL BOULE SIZES THAT LURE CRYSTALLINITY, LARGE RESISTIVITY VARIATIONS, AND HIGH DENSITY OF CRYSTALINE FLAWS.

3 86 1134

RF/LASER HARDENING OF DUMES FOR DUAL MODE SYSTEMS

CURRENT MISSILE DUMES ARE NOT HARDENED TO RFI AND LASER THREATS WHILE RETAINING THE ABILITY TO OPERATE IN SPECIFIC SPECTRAL BANDS.

PROJECTS ADDED IN 2ND HALF, CY85  
(CONTINUED)

3 86 1144

ELECTROFORMED ASPHERIC METAL MIRROR

A NEW R&D PROCESS IS AVAILABLE TO FABRICATE PRECISION METALLIC MIRRORS. THIS PROCESS INCORPORATES THE USE OF PRECISION MANDRELS WHICH ARE DIFFICULT TO MANUFACTURE. MANY MANDRELS ARE REQUIRED FOR HIGH RATE PRODUCTION.

3 86 1147

OPTICAL FIBER WINDING

THE WINDING OF A FIBER ON A PAY-OFF BUBBIN IS A COSTLY, PRECISION TASK. THIS IS CURRENTLY NOT AVAILABLE AS A HIGH-SPEED PRODUCTION PROCESS FOR THE DELICATE FIBER OPTIC CABLE.

3 86 1148

MILLIMETER WAVE MONOLITHIC/INTEGRATED RECEIVER

NO PRODUCTION CAPABILITY CURRENTLY EXISTS FOR GaAs MILLIMETER WAVE MONOLITHIC/INTEGRATED RECEIVERS.

3 86 1150

LITHIUM NIOBATE LASER Q-SWITCHES

LITHIUM NIOBATE CRYSTALS + CRYSTAL ANTIREFLECTIVE COATINGS CURRENTLY AVAILABLE ARE INADEQUATE FOR OPTICAL Q-SWITCH APPLICATION IN ND/YAG LASER DESIGNATORS + RANGEFINDERS.

3 86 2018

AUTOMATIC TEST OF PRINTED WIRE BOARDS

MANUAL INSPECTION IS A MAJOR COST DRIVER IN PRINTED WIRING BOARD (PWB) MANUFACTURING. INCREASING BOARD COMPLEXITY, FINE LINE RESOLUTION, AND MINIATURIZATION HAS ACCELERATED THE TREND TOWARD HIGHER INSPECTION COSTS.

3 86 2021

CIM TECHNIQUES FOR MISSILE HYBRID ASSEMBLIES

MILITARY HYBRID CIRCUITS ARE COSTLY AND HAVE LOW YIELD BECAUSE THEY ARE MADE BY LOW VOLUME METHODS. THEY ALSO HAVE HIGH PERFORMANCE REQUIREMENTS.

TACLM

4 86 4001

MFG FLR CORROSION PREVENTION IN TACTICAL VEHICLES

CURRENTLY THE ARMY HAS SEVERE CORROSION PROBLEMS WITH ITS TACTICAL TRUCK FLEET. ACHIEVING CORROSION RESISTANCE THROUGH THE APPLICATION OF RUSTPROOFING COMPOUNDS CONTRADICTS THE NBC REQUIREMENT FOR VEHICLES WITH CHEMICAL AGENT RESISTANT COATINGS.

PROJECTS ADDED IN 2ND HALF, CY65  
(CONTINUED)

4 86 4008

CUMPOSITE DRIVE SHAFTS

A LARGE TRUCK DRIVE SHAFT NEEDS A CENTER BEARING FOR SUPPORT. THE BEARING IS EXPENSIVE AND MUCH MACHINING ON THE SHAFT IS PERFORMED TO INSURE PROPER FIT AND FUNCTION. A COMPOSITE SHAFT WOULD END THESE PROBLEMS BUT NO RELIABLE MASS PDN PROCESS EXISTS.

4 85 4086

ADVANCED CAST ARMOUR

SOME ADVANCED ARMOUR SYSTEMS ARE EXPENSIVE BECAUSE THEY REQUIRE COSTLY MACHINING AND FABRICATION METHODS.

4 85 4087

EXPLOSIVE COMPACTION OF CERAMICS

THE COSTLY HOT PRESSING COMPACTION PROCESSES AND FINISH MACHINING PROHIBITS THE USE OF HIGH PERFORMANCE CERAMICS IN MANY APPLICATIONS.

4 86 5068

NEW ANTI-CORROSION MATERIALS

METALLIC COMPONENTS ARE DETERIORATED BY THE ENVIRONMENT.

4 86 6057

AERAMS (M1) COMBAT VEHICLE

MATERIALS AND MANUFACTURING PROCESSES EMPLOYED IN THE MFG OF THE M1 CAN BE IMPROVED BY INCORPORATING NEW TECHNOLOGIES TO THE CURRENT SYSTEM. THIS WILL ENABLE THE M1 TO BE PRODUCED MORE ECONOMICALLY.

4 86 6079

AGT-1500 ENGINE

THE NEED TO REDUCE COST AND IMPROVE PERFORMANCE OF THE AGT-1500 TURBINE ENGINE REQUIRES NEWER AND MORE INNOVATIVE MANUFACTURING TECHNOLOGY.

4 86 6090

TEAL DEPOT ANALYSIS OF RESOURCES AND TECHNOLOGY (DART)

THE AGING FACILITY AND OUTDATED TECHNIQUES HAVE RESULTED IN AN INEFFICIENT OPERATION AND SLOW DELIVERIES.

PROJECTS AUDED IN 2ND HALF, CY85  
(CONTINUED)

4 86 6107  
IMPROVED MBT TRACK

INCREASED VEHICLE PERFORMANCE REQUIREMENTS NECESSITATE HIGHER PERFORMANCE TRACKS THAN THOSE AVAILABLE TODAY. TO IMPLEMENT NEW METAL COMPOSITE, HIGHER STRENGTH FERROUS ALLOYS, AND TITANIUM NEW MANUFACTURING PROCESSES MUST BE ESTABLISHED.

4 86 6123  
CERAMIC TURBOCHARGER ROTOR

SMALL SILICON CARBIDE TURBOCHARGER ROTORS HAVE BEEN FABRICATED WITH A PROPRIETARY PROCESS IN INDUSTRY AND WERE SUCCESSFUL; HOWEVER, THE PROCESS CAN NOT BE APPLIED DIRECTLY TO ARMY COMPONENTS BECAUSE OF THE PROPRIETARY LIMITATION AND SCALE PROBLEMS.

4 86 6125  
WELD PROCESS PLANNING AND CONTROL

PLANNING, MONITORING, AND INSPECTION OF THE WELDING PROCESS ARE EXPENSIVE, TIME CONSUMING, AND CAUSE PRODUCTION DELAYS WHEN A QUALITY PROBLEM IS SUSPECTED.

AMCCOM (AMMU)

5 86 0905  
MFG OF IMPREGNATED CHARCOAL (WHETLERITE)

ONLY ONE COMPANY (CALGEN, INC) SUPPLIES WHETLERIZED CHARCOAL AND CONSIDERS ITS PROCESS PROPRIETARY. THIS MATERIAL IS VITAL FOR NEW PROTECTIVE MASKS. A PROCESS MUST BE DEVELOPED TO DIVERSIFY PRODUCTION BASE AND REDUCE COST THRUUGH COMPETITION.

5 86 0918  
MODERNIZATION OF FILTER PENETRATION EQUIPMENT

CURRENTLY, ALL PROTECTIVE PARTICULATE FILTERS ARE TESTED WITH THREE TYPES OF EQUIPMENT. THIS EQUIPMENT IS OBSOLETE, INEFFICIENT, AND UNRELIABLE.

5 86 0923  
VELOCITY TRAVERSE MAPPER FOR CHARCOAL FILTERS

CAS FILTERS MUST BE MONITORED DURING THE MANUFACTURING PROCESS TO ASSURE THE INTEGRITY OF THE CHARCOAL BED BEFORE ASSEMBLY.

PROJECTS ADDED IN 2ND HALF, CY85  
(CONTINUED)

5 86 0925

PROTECTIVE MASK LEAKAGE TESTING

CURRENT GAS MASK TESTER DOES NOT SIMULATE THE ACTUAL FIELD USE AND IS NOT SENSITIVE ENOUGH TO DETECT SMALL LEAKS

5 86 0926

MFG METHODS + TECH FOR XM22 CHEMICAL AGENT ALARM SYSTEM

A CHEMICAL AGENT ALARM SYSTEM, XM22 IS CURRENTLY UNDER DEVELOPMENT TO PROVIDE CAPABILITY OF CHEMICAL DEFENSE. COMPLEX COMPONENTS IN THE ALARM ARE DIFFICULT TO PRODUCE AND LACK AVAILABLE HIGH PRODUCTION TECHNIQUES.

5 86 1295

MODERNIZATION OF CHARCOAL FILTER TEST EQUIPMENT

CHARCOAL FILTER TESTING EQUIPMENT NEEDED TO PROVIDE TESTING CAPABILITY FOR VARIOUS CHEMICAL AGENTS DOES NOT EXIST.

5 86 1402

120MM COMBUSTIBLE CASE BODY REMOVAL SYSTEM

A POTENTIAL SAFETY PROBLEM CURRENTLY EXISTS IN THE COMBUSTIBLE CASE HOLDING AREA ON THE 120MM LINE. THE REMOVAL OF THE CASE BODY FROM THE MALE PRESSING MANDREL IN THIS AREA IS A HAZARDOUS STEP IN THE PRODUCTION OF THE 120MM CASE BODIES.

5 86 1725

ELECTRICAL SENSITIVITY OF INITIATING EXPLOSIVES

FROM THE VERY BEGINNING OF ORDNANCE WORK, THE INDUSTRY HAS BEEN PLAGUED BY MANY COSTLY AND DANGEROUS PROCESS AND STORAGE EXPLOSIVE ACCIDENTS WITH INITIATING EXPLOSIVES. MANY OF THESE INCIDENTS HAVE NEVER BEEN PROPERLY EXPLAINED.

5 86 1805

IMPROVED PWD VIBRATION TESTS - H732 PIP FUZE + COMPONENT

PROJECT WILL EXPAND THE CAPABILITY OF A 3-D VIBRATION SYSTEM BUILT UNDER MMT PROJECTS 5 79, 80, 81 3961. TEST DEFICIENCIES WILL BE ELIMINATED BY EXACT DUPLICATION OF FUZE TRI-AXIAL WAVEFORMS.

5 86 4273

AUTOMATED PRODUCTION OF STICK PROPELLANT

PRESENT BATCH TECHNIQUES FOR STICK PROPELLANT MFG INVOLVE MUCH HAND LABOR THEREBY RESULTING IN LIMITED PRODUCTION CAPACITY, HIGH COST, AND HAZARD EXPOSURE.

PROJECTS ADDED IN 2ND HALF, CY85  
(CONTINUED)

5 86 4358

AUTU LINE PROCESS INSPECT OF NEW EEDS (ALPONE)

INSPECTION OF BRIDGE WIRE ON ELECTRIC DETONATORS.

5 86 4406

IMPROVING THE YIELD OF HMX DURING RDX NITROLYSIS

THE CURRENT MANUFACTURING PROCESS FOR HMX IS INEFFICIENT IN THAT YIELDS OBTAINED ARE STILL LESS THAN THEORETICAL.

5 86 4427

EVALUATE ON-LINE CHEMICAL ANALYZERS FOR NO PLANT

A NITROGUANIDINE MFG FACILITY IS BEING CONSTRUCTED AT SUNFLOWER AAP. MMT 5 78 4447 INDICATED THE FEASIBILITY OF AUTOMATED ON-LINE INSTRUMENTATION FOR PROCESS STREAM CHEMICAL ANALYSIS. HOWEVER THE RELIABILITY HAS NOT BEEN DEMONSTRATED.

5 86 4449

PROCESS IMPROVEMENT FOR COMP C-4 EXPLOSIVES

THE EXISTING FACILITIES WHICH ARE COMMON TO THE MANUFACTURE OF COMP C-4 AND THE OTHER RDX COMPOSITION WOULD LIMIT THE AVAILABILITY OF THESE ITEMS BELOW THEIR MOB REQUIREMENTS.

5 86 4473

AUTUMATED LEAK DETECTION OF WP MUNITIONS

THE CURRENT METHOD OF HEATING THE WHITE PHOSPHOROUS MUNITIONS TO CHECK FOR LEAKS IS LABOR INTENSIVE AND IS NOT UNIFORM FOR ALL ROUNDS.

5 86 4531

AUTUMATED PRODUCTION OF STICK PROPELLANT ON CAMBL

VARIOUS HIGH ENERGY AND LUVA GRANULAR AND STICK MULTI-BASE PROPELLANTS ARE BEING DEVELOPED. BATCH FACILITIES FOR MULTI-BASE HAVE A CONSTRAINED CAPACITY. A NEW CAMBL IS BEING BUILT BUT HAS NOT PROVEN CAPABLE OF MANUFACTURING STICK PROPELLANTS.

5 86 4570

IMPR MFG PRU TES PRUC FLR ARTY ELEC TIME FUZES

CRYSTAL DEFECTS CAN CAUSE CRYSTAL OSCILLATORS TO FAIL AT HIGH SETBACK FORCES. ALSO, VARIATIONS IN MAGNETIC PROPERTIES OF PARTS IN THE SETBACK GENERATOR CAN CAUSE LOW OUTPUT, AND EACH FUZE MODULE SHOULD BE TESTED AS IT IS BEING ASSEMBLED.

PROJECTS ADDED IN 2ND HALF, CY85  
(CONTINUED)

5 86 4578

MUD + IMPROVEMENT OF UMSO PILOT PROCESS FOR RDX/HMX

PILOT SCALE PROCESS FOR RECRYSTALLIZATION OF RDX/HMX FROM DMSO WAS DESIGNED, PROCURED AND INSTALLED AT HAAP, INSUFFICIENT DATA OBTAINED TO YIELD OPTIMIZED OPERATING CONDITIONS.

5 86 4597

MFG PROCESSES FOR CANON CALIBER DU PENETRATOR

CURRENT FABRICATION TECHNIQUES FOR SMALL CALIBER DEPLETED URANIUM PENETRATORS RESULT IN EXCESSIVE SCRAP OF RADIOACTIVE CONTAMINANTS AND ARE HIGHLY LABOR INTENSIVE.

5 86 4612

NITRAMINE (LOVA) PROPELLANT WASTEWATER ABATEMENT

THE INGREDIENTS (RDX-TAGN) IN NITRAMINE PROPELLANTS WERE NOT CONSIDERED IN DEVELOPING CRITERIA FOR POLLUTION ABATEMENT AT GOCE FACILITIES. NOW NITRAMINE PROPELLANTS ARE SCHEDULED FOR PRODUCTION. EFFECT OF NITRAMINE ON POLLUTION ABATEMENT UNKNOWN.

5 86 4615

IMPROVED SOLVENTLESS PASTE BLENDING

PASTE BLENDING AND FINAL BLENDING OF STICK PROPELLANT IS NOW REQUIRED. A MORE INTENSIVE PASTE BLEND MAY ALLOW ELIMINATION OR REDUCTION OF THE FINAL BLENDING STEP.

5 86 4625

AUTO MANUFACTURE OF SILICON IF AMPLIFIER IC (CAM)

COMMERCIAL MONOLITHIC IF AMPLIFIER IC'S ARE DEFICIENT IN BAND PASS (1-50 MHZ), NOISE FIGURE (1.5 DE) AND POWER GAIN (60 DB). R&D DEVELOPED A SILICON MONOLITHIC IF AMPLIFIER BUT VOLUME MFG PROCESSES WERE NOT ESTABLISHED.

5 86 4626

AUTOMATED ASSEMBLY OF MMW TRANSDUCER

PLACEMENT AND BONDING OF SMALL SEMICONDUCTOR CHIPS UNTO MICROSTRIP REQUIRES ACCURACY NOT FOUND IN TODAY'S PICK-AND-PLACE EQUIPMENT.

PROJECTS ADDED IN 2ND HALF, CY85  
(CONTINUED)

5 86 4627

AUTOMATED TEST OF MMW TRANSLUCER

THE HAND LABOR INVOLVED IN TUNING MILLIMETER WAVE TRANSDUCERS IS EXTREMELY COSTLY.

5 86 4633

AUTO SENSUR SYSTEMS TEST FOR MMW AND IR SENSORS

AT PRESENT THE MILLIMETER/IR SENSUR SYSTEM IS MANUALLY SYNCHRONIZE. THIS METHOD IS SLOW AND NOT CAPABLE OF MEETING COST REQUIREMENTS, THROUGHPUT, AND SCHEDULE GOALS.

5 86 4637

AUTLMATED MANUFACTURE + INSPECTION OF SFF WARHEAD LINERS

CONVENTIONAL SFF LINER MACHINING AND INSPECTION TECHNIQUES REQUIRED TO ACHIEVE DESIGN TOLERANCES ARE COSTLY AND TIME CONSUMING.

5 86 4656

NITRAMINE PROPELLANT PROCESSING

NITRAMINE CONTAINING GUN PROPELLANTS SUCH AS LOVA AND GAU-8 PCP ARE PRESENTLY PRODUCED BY A DISCONTINUOUS, MANPOWER INTENSIVE, INEFFICIENT BATCH PROCESS. PRODUCT UNIFORMITY IS DIFFICULT TO OBTAIN DUE TO IMPRECISE CONTROLS.

5 86 4660

AUTLMATED BLENDING OF STICK PROPELLANT

MANUAL BLENDING OF STICK PROPELLANT IS LABOR AND SPACE INTENSIVE AND CANNOT SUPPORT PRODUCTION OF LARGE QUANTITIES OF STICK PROPELLANT.

5 86 4666

PRO SPIRAL WRAP TOOL F/155M XM203E2 CUMB CASE BLDIES

AT PRESENT, THESE COMBUSTIBLE CASE COMPONENTS, END CAPS, IGNITER CAPS AND CASE BLDIES ARE MADE USING PULP MOLDING TECHNOLOGY. COSTS ARE QUITE HIGH BECAUSE IT IS BOTH CAPITAL AND LABOR INTENSIVE.

5 86 4668

ELECTROSTATIC PRECIP IMPROVEMENTS (SMUG HUS)

THE SMUG HUS AT MSAAP AND SAAP HAVE BOTH HAD FIRES WITH EXTENSIVE DAMAGE. IMPROVEMENTS WERE MADE TO THEIR FIRE SUPPRESSION SYSTEM. HOWEVER, DETERMINING AND ELIMINATING THE CAUSE OF THE FIRES HAS NOT BEEN STUDIED.

PROJECTS ADDED IN 2ND HALF, CY85  
(CONTINUED)

5 86 4763

MANUFACTURING PROCESS FOR AMMU

THIS PROJECT IS CLASSIFIED AS SECRET. NO FURTHER  
INFORMATION IS AVAILABLE.

AMCOM (WPNS)

6 86 7985

SMALL ARMS WEAPNS NEW PROCESS PRODUCTION TECHNOLOGY

GUN BARREL MFG PROCEDURES REFLECT ANTIQUATED TECHNOLOGY AND  
RELY ON MASS REMOVAL OF MATERIAL BY CONVENTIONAL MACHINING  
METHODS. CURRENT EQUIP REPRESENTS 1940-50 TECHNOLOGY. NEW  
MATERIALS COMPOUND THE PROBLEM.

6 86 8305

INTEGRATED MANUFACTURING SYSTEM (IMS)-(CAM)

AI SYSTEMS ARE APPLIED LOCALLY BUT THERE IS NO DATA  
MANAGEMENT SYSTEM FOR THE ENTIRE MFG ACTIVITY. THIS  
INCREASES COST DUE TO LONG LEAD TIMES, SCHEDULE  
INTERRUPTIONS AND SHORTAGES OF MACHINE AVAILABILITY, LABOR  
AND MATERIAL.

6 86 8324

PROCESS CONTROLS FOR P/M WEAPN COMPONENTS

PRESENT METHODS OF PRODUCING WEAPN COMPONENTS IS MAINLY BY  
MACHINING FROM WROUGHT STOCK. THIS IS A HIGH COST METHOD  
WHICH PRODUCES MUCH ALLOY STEEL SCRAP.

6 86 8329

FIRE CONTROL OPTICAL DEVICES NEW PROCESS PROD TECH

PRODUCTION DELAYS AND COST OF REWORKS HAVE BEEN A GREAT  
LOGISTICS PROBLEM. THERE HAS BEEN A SIGNIFICANT SHIRTEALL  
IN PRODUCTION CAPABILITY.

6 86 8352

SKIVING (METAL SHAVING) OF GUN TUBE BORES

INTERMEDIATE TUBE BORE MUNING OPERATIONS FOR SURFACE FINISH  
AND SIZE CONTROL ARE A TIME CONSUMING, COSTLY METAL REMOVAL  
PROCESS. COUNTERBORING OPERATIONS PRIOR TO SWAGE  
AUTOFRETAGE ARE ALSO SLOW, TIME CONSUMING, AND HIGH IN  
TOOLING COSTS.

PROJECTS ADDED IN 2ND HALF, CY65  
(CONTINUED)

6 86 8370

AUTO INSPECTION + PROC COUNT OF WEAPONS PARTS MFG

FOR BARREL MFG, CURRENT HAND GAGED INSPECTION IS A MAJOR TIME FACTOR. BARREL STRAIGHTENING IS ALSO DONE MANUALLY AS MANY AS 13 TIMES DURING THE MFG CYCLE. NEW DNC EQUIP BEING PROCURED VIA PIF 68X7980 REQUIRES CENTRAL CONTROL.

6 86 8403

DESIGN CRITERIA FOR HARDENING

SELECTION OF THE BEST HARDENING PROCESS. INCOMPLETE HARDENING THRUOUGHOUT THE COMPONENT AND COMPLICATIONS CAUSED DURING THE HEAT TREATMENT OF WELDMENTS ARE RECURRING PROBLEMS CURRENTLY ADDRESSED BY EMPIRICAL METHODS.

6 86 8416

FLEXIBLE MFG SYSTEM WITH SPECIAL TOLLING - RIA

FLEXIBLE MACHINING SYSTEM (FMS) TECHNOLOGY OFFERS MANY ADVANTAGES TO PLANTS THAT MANUFACTURE PARTS IN LOW TO MID VOLUME QUANTITIES. HOWEVER, ESTABLISHING FEASIBILITY, PURCHASING, AND IMPLEMENTING FMS IS WIDE IN SCOPE AND VERY COMPLEX.

6 86 8437

DENSIFICATION OF WEAPN CASTINGS (HIP)

CASINGS FOR WEAPONS COMPONENTS OFTEN CONTAIN EXCESSIVE SHRINKAGE CAVITIES AND VOIDS, RESULTING IN REJECTION OR COSTLY WELD REPAIR.

6 86 8510

AUTOMATED INSPECTION OF RECOIL COMPONENTS (CAM)

MANY COMPONENTS ARE UNSALVAGEABLE BECAUSE CYLINDRICITY IS LOST AFTER A MANUFACTURING PROCESS OR UNACCEPTABLE SURFACE INTEGRITY. THESE COMPONENTS ARE USUALLY UNDETECTED UNTIL NEEDLESS STEPS IN THE PROCESS ROUTINGS HAVE BEEN PERFORMED.

6 86 8511

DIE CASTING OF ANTIFRICTION METAL COMPONENTS

ANTIFRICTION METAL FOR PACKING GLANDS IN RECOIL MECHANISMS IS PRESENTLY HAND CAST. OVER 70-80 PERCENT OF THE METAL IS EXCESS + HAS TO BE MACHINED OFF AT ADDL COST.

PROJECTS ADDED IN 2ND HALF, CY85  
(CONTINUED)

6 86 8518

THIN FILM COATINGS FOR LASER EYE PROTECTION

A RECENT REQUIREMENT FOR IMPLEMENTATION OF HIGH-G OPTICAL NOTCH FILTERS FOR LASER THREAT DEFENSE HAS BEEN ESTABLISHED. THE FILTER DESIGN HAS BEEN ESTABLISHED BUT MANUFACTURERS USE THEIR OWN SELECTION OF PROCESS STEPS TO FABRICATE THE FILTER.

6 86 8546

MACHINERY CONDITIONS SURVEILLANCE SYSTEM

PROVISION DOES NOT PRESENTLY EXIST FOR CONTINUOUS LARGE-SCALE MONITORING OF MACHINE TOOL DYNAMICS IN ORDER TO DETECT CONDITIONS WHICH ARE LIKELY TO RESULT IN MECHANICAL MALFUNCTION.

6 86 8553

APPLICATION OF REFRACTORY + OTHER COAT BY THE SPUTT TECH

COATING LINERS WITH TANTALUM ELECTRODEPOSITION FROM MOLTEN SALTS INVOLVES HEATING THE SUBSTRATE TO ABOUT 800 DEGREE C. AT THIS TEMPERATURE GUN STEEL UNDERGOES UNDESIRABLE CHANGES IN MECHANICAL PROPERTIES.

6 86 8559

CIM FOR CANNON, CAE/CAM/CMM

THE EXCHANGE OF MANUFACTURING DATA AT WATERVLIET ARSENAL IS LARGEMLY MANUAL, ERROR PRONE AND TIME CONSUMING. CURRENT PROCESS PLANNING, SCHEDULING, AND PRODUCTION CONTROL SYSTEMS EXCHANGE DATA MANUALLY.

6 86 8603

ROBOTIC WELDING

PRODUCTIVITY IN THE WELD SHOP IS LIMITED BECAUSE THE MAJORITY OF THE WELDING IS DONE MANUALLY.

6 86 8625

MANUFACTURING OF MULTI-LUG BREECH MECHANISMS

THE MANUFACTURE OF MULTI-LUG COMPONENTS INVOLVES THE USE OF FORM CUTTERS WHICH ARE USED TO MILL THE REQUIRED CONFIGURATION. ALTHOUGH THIS METHOD HAS BEEN SUCCESSFUL ON A PROTOTYPE BASIS, IT DOES NOT APPEAR TO BE FEASIBLE FOR PRODUCTION QUANTITIES.

PROJECTS ADDED IN 2ND HALF, CY85  
(CONTINUED)

6 86 8638

CONTROL OF SEQUENTIAL MACHINING OPERATIONS (CAM)

PRESENTLY, IN ALMOST ALL AUTOMATED MACHINING OPERATIONS, CUTTING RATES ARE LOWERED TO AVOID TOOL BREAKAGE AND REJECTION OF COMPONENTS. MACHINING PARAMETERS ARE SET BY ALLOWING FOR WORST POSSIBLE CONDITIONS.

6 86 8641

MFG OF TITANIUM ALLOY METAL MATRIX CANNON COMPONENTS

THE INTRODUCTION OF TITANIUM ALLOY + VARIOUS METAL MATRIX FORMS FOR LIGHT WEIGHT REINFORCING JACKETS ON GUN TUBES WILL PRESENT MANUFACTURING PROBLEMS. THE PROBLEMS INCLUDE THE DETERMINATION OF PROPER TOOLING AND METHOD OF MANUFACTURING.

6 86 8642

APPLICATION OF ADVANCED MATERIALS TO CANNON PROD

EXISTING MANUFACTURING GUIDELINES ARE NOT YET ESTABLISHED FOR MANUFACTURING TITANIUM ALLOY GUN TUBE JACKETS. THE USE OF TITANIUM WILL REQUIRE MATERIAL CHARACTERIZATION. THIN-WALL DESIGN PRESENTS PROBLEMS WITH WELDING, SHRINK FITTING, FORGING.

TRESCUM

6 86 8796

COMBAT VEHICLE DEPERMING PRODUCTION FACILITY

PRESENT DESIGN AND FABRICATION TECHNIQUES FOR VEHICLES RESULT IN A SIGNIFICANT MAGNETIC SIGNATURE. THIS MAGNETIC SIGNATURE CAN BE USED TO FUSE LAND MINES TO ATTACK THE VEHICLE UNDERCARRIAGE.

6 86 8802

HIGH STABILITY TRUSS CHORD

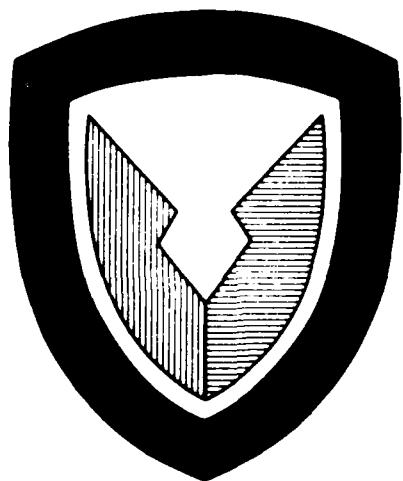
USE OF BRAIDED GRAPHITE TO MAKE POSSIBLE STRONG BRIDGE SECTIONS HAS BEEN DEMONSTRATED. BUT, BARRIER TO USING BRAIDING IN PRODUCTION IS THAT A RELIABLE METHOD OF IMPREGNATING FIBERS WITH RESIN DOES NOT EXIST.

6 86 8074

ADVANCED HARDENED SHELTER COST OPTIMIZATION

FIRST GENERATION HARDENED SHELTERS, NOW IN DEVELOPMENT, EMPLOY THE SAME MATERIALS AND FABRICATION TECHNIQUES USED IN THE PAST BY THE SHELTER INDUSTRY FOR THE PRODUCTION OF UNHARDENED DESIGNS. CLU METHODS MAKE THE NEW SHELTERS FIVE TIMES AS CHEAP.

**MMT PROGRAM**  
**FINAL STATUS REPORTS RECEIVED**  
**DURING 2ND HALF, CY85**



FINAL STATUS REPORTS RECEIVED DURING 2ND HALF, CY85

AMETA

4 71 5052  
ARMY ENGINEERING DESIGN HANDBOOK FOR PRODUCTION SUPPORT

ELSCOM

€ '85 0003  
TEAL PRODUCTION EFFICIENCY REVIEW

LABCOM

H 80 5023  
TUBULAR PLASMA PANEL

H 83 5019  
LASER-CUT SUBSTRATES FOR MICROWAVE TUBES

H 84 5162  
EXJAM BATTERY MANUFACTURING TECHNOLOGY, PHASE II

H 85 5174  
AUTO SPUTTERING PROCESS CONTROL F/PRODUCING ZNO - PHASE II

TMDE

3 '82 3115  
ENGINEERING FOR METROLOGY AND CALIBRATION

3 '82 3115 17  
DYNAMIC ELECTRICAL MEASUREMENT STANDARDS

3 '82 3115 25  
BASIC METROLOGY STD FOR USE IN WIDE-RANGING ENVIRONMENTS

3 '82 3115 34  
IMPROVED ON-SITE SERVICE

3 '82 3115 35  
VISCOSITY AND DENSITY MEASUREMENTS

3 '82 3115 37  
DATA ANALYSIS TECHNIQUES

FINAL STATUS REPORTS RECEIVED DURING 2ND HALF, CY85  
(CONTINUED)

3 '83 3115  
ENGINEERING FOR METROLOGY AND CALIBRATION

3 '83 3115 01  
JOSEPHSEN EFFECT VOLTAGE STANDARD

3 '83 3115 25  
BASIC METROLOGY STD FOR USE IN WIDE-RANGING ENVIRONMENTS

3 '83 3115 34  
IMPROVED UN-SITE SERVICE

3 '83 3115 35  
VISCOSITY AND DENSITY MEASUREMENTS

3 '84 3115  
ENGINEERING FOR METROLOGY AND CALIBRATION

3 '84 3115 25  
BASIC METROLOGY STD FOR USE IN WIDE-RANGING ENVIRONMENTS

4 '85 3115  
ENGINEERING FOR METROLOGY AND CALIBRATION

4 '85 3115 01  
JOSEPHSEN EFFECT VOLTAGE STANDARD

4 '85 3115 17  
DYNAMIC ELECTRICAL MEASUREMENT STANDARDS

4 '85 3115 34  
IMPROVED UN-SITE CALIBRATION

4 '85 3115 37  
DATA COLLECTION/REDUCTION IMPROVEMENT

4 '85 3115 39  
IMPROVE ANNEALING PROC, MOUNTING STRUCT PKG + TERM CONFIG

4 '86 3115  
ENGINEERING FOR METROLOGY + CALIBRATION

4 '86 3115 42  
AUTLMATED INTERCOMPARISLN OF STANDARD RESISTORS

AVS/COM

1 '86 7286  
HIGH QUALITY SUPERALLOY POWDER PRD F/TURBINE COMPONENTS

FINAL STATUS REPORTS RECEIVED DURING 2ND HALF, CY85  
(CONTINUED)

1 '84 7300  
IMPROVED LOW CYCLE FATIGUE (LCF) CAST ROTORS  
1 '84 7302  
PRODUCTION OF BURIDE COATED LONG LIFE TOOLS  
1 '84 7378  
STAINLESS STEEL GEARBOX HOUSING  
1 '85 7378  
STAINLESS STEEL GEARBOX HOUSING  
1 '82 7415  
MMT T700 BLISK REPAIR  
1 '82 7426  
MMT-IPI PROGRAM-MARTIN MARIETTA TADS/PNVS  
1 '85 7473  
FIBER REINFORCED THERMOPLASTIC STRUCTURES  
7 '84 8198  
T-700 TURBINE ENGINE MFG PRODUCTIVITY IMPROVEMENT

CECOM

F '81 9558  
THIRD GENERATION LOW COST IMAGE INTENSIFIER TUBES

MICLM

3 '84 1060  
ELECTRICAL TEST AND SCREENING OF CHIPS  
3 '85 1095  
AUTOMATIC SEALING OF HYBRID PACKAGES (CAM)

TACLM

E '77 3749  
HYDRAULIC ROTARY ACTUATORS  
E '81 3749  
HYDRAULIC ROTARY ACTUATORS

FINAL STATUS REPORTS RECEIVED DURING 2ND HALF, CY85  
(CONTINUED)

E 81 3749  
HYDRAULIC ROTARY ACTUATORS FOR M9

T 82 5024  
GEAR DIE DESIGN + MFG UTILIZING COMPUTER TECHNOLOGY (CAM)

T 82 6038  
HIGH DEPOSITION WELDING

T 81 6098  
PRODUCTION OF SPECIAL ARMOR STEEL

AMCCOM (AMML)

S 82 1701  
BULK TRANSFER OF CHEMICAL MATERIALS

S 82 1711  
RED PHOSPHORUS POLLUTION ABATEMENT EVALUATIONS

S 81 3961  
IMPROVED VIBR ACCEPTANCE TESTING F/M732, XM587/724 FUZES ? S2A

S 79 4000  
AUTOMATED M55 DETONATOR PRODUCTION EQUIPMENT

S 79 4024  
DSN DEV BLD PROT COMP AND AUTO ASSY MACH M223 FUZE

S 82 4267  
CONTINUOUS PROCESS FOR GRANULAR CUMP &

S 84 4273  
AUTOMATED PRODUCTION OF STICK PROPELLANT

S 84 4466  
IMPROVING THE YIELD OF HMX DURING RLX NITRILYSIS

S 83 4511  
DISPOSAL OF FINAL SLUDGE FROM ACID RECOVERY OPERATIONS

S 84 4511  
DISPOSAL OF FINAL SLUDGE FROM ACID RECOVERY OPERATIONS

S 83 4534  
SAWS BULLET CONVERSION OF SCAMP EQUIPMENT

FINAL STATUS REPORTS RECEIVED DURING 2ND HALF, CY85  
(CONTINUED)

5 '85 4534  
4855 BULLET CONVERSION OF SLAMP EQUIPMENT

5 '84 4540  
CACLB CLATING OF 7.62MM BALL PROPELLANT

5 '82 4557  
ARBAT

5 '84 4574  
IMPROVED PROCESS FOR RDX/HMX FINES MANUFACTURE

5 '84 4578  
MODIFICATION + IMPROVEMENT OF CMSU PILOT PROCESS FOR RDX/HMX

5 '84 4579  
WHITE WATER RECOVERY SYS F/COMBUSTIBLE LASER MANUFACTURING

5 '84 4597  
MFG PROC F/CANNON CALIBER DU PENETRATOR (20MM, 25MM, 30MM)

5 '84 4657  
BINARY FACILITY MONITORING AND DETECTION

AMCOM (WPNS)

6 '81 7724  
GROUP TECHNOLOGY OF WEAPON SYSTEMS (CAM)

6 '83 7724  
GROUP TECHNOLOGY OF WEAPON SYSTEMS (CAM)

6 '84 7926  
HOT ISOSTATIC PRESSING (HIP) OF LARGE ORDNANCE COMPLEMENTS

6 '84 7949  
APPLICATION OF GROUP TECHNOLOGY TO RIA MFG (CAM)

6 '82 7985  
SMALL ARMS WEAPONS NEW PROCESS PRODUCTION TECHNOLOGY

6 '84 7985 .5  
RECYCLE OF GUN STEEL

6 '84 8135  
IN-PROCESS CONTROL OF MACHINING

FINAL STATUS REPORTS RECEIVED DURING 2ND HALF, CY85  
(CONTINUED)

6 83 8154  
COMPUTER INTEGRATED MANUFACTURING (CIM) FOR CANNON

6 82 8244  
OPTIMIZE THE HEAT TREATMENT OF ROTARY FORGE TUBES

6 82 8306  
ON-LINE PRODUCTION INFORMATION SYSTEM (CAM)

6 84 8324  
PROCESS CONTROLS FOR P/M WEAPON COMPONENTS

6 84 8326  
APPLICATION OF CORROSION RESISTANT COATINGS

6 84 8329  
FIRE CONTROL OPTICAL DEVICES NEW PROCESS PRODUCTION TECH

6 83 8352  
SKIVING (METAL SHAVING) GUN TUBE BORES

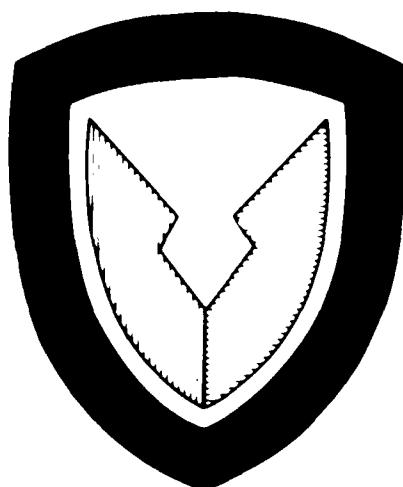
6 82 8416  
FLEXIBLE MACHINING SYSTEM - RIA (CAM)

6 85 8560  
APPLICATION OF COUNTER HOLDER EQUIPMENT TO ROTARY FORGING

TOTAL PROJECTS COMPLETED IN 2ND HALF, CY85 65

**MMT PROGRAM**

**SUMMARY PROJECT STATUS REPORT**



**MANUFACTURING METHODS AND TECHNOLOGY PROGRAM**

**SUMMARY PROJECT STATUS REPORT**

The Summary Project Status Report for each major Army subcommand (SUBMACOM) is preceded by the tabulated SUBMACOM MMT project funding status. The accuracy of funding amounts is based on the individual project status reports. If a status report was not provided, a pertinent comment was added to show those projects that were delinquent.

The sample form on the reverse side of this page is an example of the format for the individual project reports that follow. The User's Guide on the next page explains the content of the print out and Table 1 on the following page identifies the commodity commands responsible for the execution of the projects.

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM  
 J U M M A R Y P R O J E C T S T A T U S R E P O R T  
 2ND SEMIANNUAL SUBMISSION CY 85 KCS DRCMT-301

PROJ. NO. TITLE • STATUS

PROJ. NO.	TITLE • STATUS	AUTHO- RIZED (\$000)	CONTRACT VALUES (\$000)	EXPENDED DURING LABOR AND MATERIAL (\$000)	PRESENT PROJECTED COMPLETE DATE	
					PERIOD JAN 86	PERIOD JUN 86
4 85 6C95 05	SKIVE MACHINING OF GEARS -----DELINQUENT STATUS REPORT-----	6,500.0	6,515.0	705.0	100.0	100.0
1 81 5C99	MANUFACTURING METHODS FOR SPECIALIZED ARMOR MATERIALS	842.0	842.0	339.0	339.0	339.0
4 83 6107	IMPROVED MBT TRACK	842.0	842.0	366.0	366.0	366.0
4 83 6107 C1	LCMP MFG FRM HI STR/LW EIGHT FERROUS, NON-FERR + MTL MATRIX	842.0	842.0	528.0	528.0	528.0
4 83 6107 D1	ORGANIC COMPOSITE ROAD SHELL	842.0	842.0	450.0	450.0	450.0
4 85 6107	IMPROVED MBT TRACK	623.0	623.0	160.0	160.0	160.0
4 85 6107 01	TRACK PINS + SHIMS MFG FROM ALUMINUM MATRIX COMPOSITE MALL	450.0	450.0	368.0	368.0	368.0
4 85 6107 02	LOW COST ADAPTIVE FLUIDIC DAMPER MATERIALS	450.0	450.0	-----	-----	-----
4 86 6107	IMPROVED MBT TRACK -----JUST FUNDED. NO BCI REQUIRED-----	606.0	606.0	580.0	25.0	25.0
4 86 6121	CAV/CAM FOR THE BRADLEY FIGHTING VEHICLE	606.0	606.0	580.0	25.0	25.0
4 86 6121 C1	RCDC/TIC WELDING	-----	-----	-----	-----	-----
4 85 6121	CAV/CAM FOR THE BRADLEY FIGHTING VEHICLE -----DELINQUENT STATUS REPORT-----	240.0	205.0	35.0	35.0	35.0
4 85 6123	CERAMIC TURBUCHARGER RUTUR	260.0	234.0	5.0	5.0	5.0
4 86 6123	CERAMIC TURBUCHARGER RUTUR	275.0	275.0	-----	-----	-----
4 85 6115	FIELD PROCESS PLANNING AND CONTROL -----DELINQUENT STATUS REPORT-----	-----	-----	-----	-----	-----
4 86 6125	FIELD PROCESS PLANNING AND CONTROL -----JUST FUNDED. NO BCI REQUIRED-----	(2)	(3)	(4)	(5)	(6)

(7) (8) (7) (8)

THIS FORM IS USED FOR SUMMARIZING  
 THE MMT PROGRAM PROJECTS' STATUS.  
 USER'S GUIDE BELOW EXPLAINS THE  
 SIGNIFICANCE OF EACH COLUMN HEREIN.

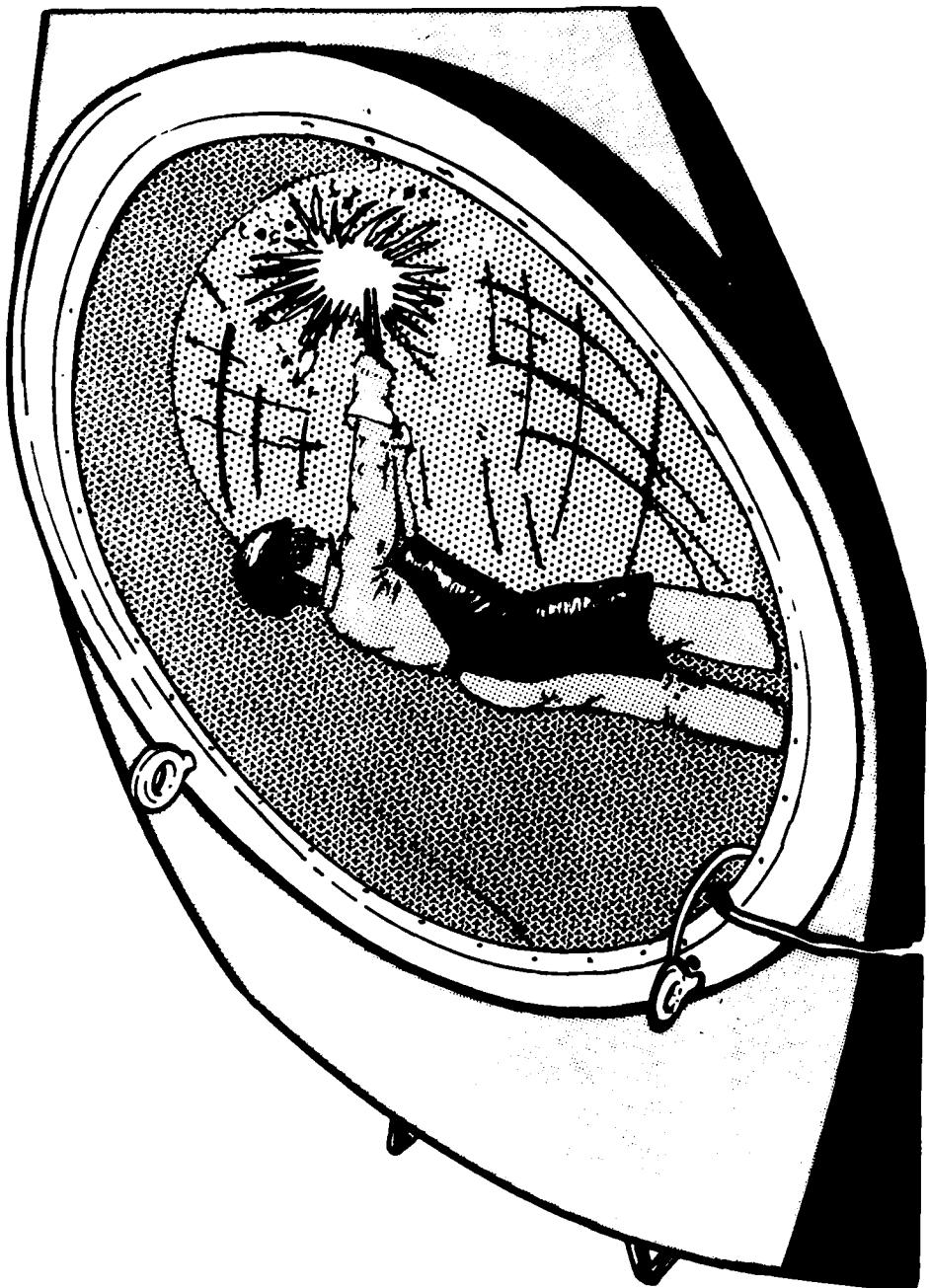
**USER'S GUIDE**  
to  
**SUMMARY PROJECT STATUS REPORT**

COLUMN 1. <u>PROJECT NUMBER</u>	COLUMN 4. <u>AUTHORIZED</u>
A project identified by the first and last four digits which corresponds to the project title for the life of its execution. However, for accounting and reporting purposes, a project is recognized by the totality of its seven-digit numeric or alphanumeric number. Example: 3 75 6241	The total amount of funds authorized in dollars, to complete the project.
	COLUMN 5. <u>CONTRACT VALUES</u>
	The portion of authorized funds actually expended or obligated for work performed by private industry.
	COLUMN 6. <u>EXPENDED LABOR AND MATERIAL</u>
	Project identifying number, which corresponds to the project title and is designated by action command.
	COLUMN 7. <u>ORIGINAL PROJECTED COMPLETION DATE</u>
	Calendar date clearly given in, or the nearest calendar month and year as could be read from the Milestone Chart of, the very first Project Status Report, RCS DRCMT-301.
	COLUMN 8. <u>PRESENT PROJECTED COMPLETION DATE</u>
COLUMN 2. Subtask identifier, if any.	Calendar date clearly given in, or the nearest calendar month and year as could be read from the Milestone Chart of, the latest Project Status Report, RCS DRCMT-301.
COLUMN 3. <u>PROJECT TITLE</u>	The title descriptive of project effort.

**ARMY ACTION COMMAND/ACTIVITY IDENTIFICATION**

<u>Action Command Identifier</u>	<u>Acronym</u>	<u>Command</u>
Management Engineering Training Activity	AMETA	D
Depot Systems Command	DESCOM	G
Laboratory Command	LABCOM	H
Test Measurement Diagnostic Equipment Support Group	TMDE	K
Materials Technology Laboratory	MTL	M
Test & Evaluation Command	TECOM	O
Aviation Systems Command	AVSCOM	1
Communications & Electronics Command	CECOM	2
Missile Command	MICOM	3
Tank-Automotive Command	TACOM	4
Armament, Munitions, & Chemical Command (Munitions)	AMCCOM (Ammo)	5
Armament, Munitions, & Chemical Command (Weapons)	AMCCOM (Wpns)	6
Troop Support Command	TROSCOM	7

Table 1



**DEPOT SYSTEMS COMMAND  
(DESCOM)  
AND  
MANAGEMENT ENGINEERING TRAINING ACTIVITY  
(AMETA)**

AMETAC AND DEPUT SYSTEMS COMMAND  
CURRENT FUNDING STATUS, 2ND CY85

FISCAL YEAR	NO. OF PROJECTS	AUTHORIZED Funds (\$)	CONTRACT ACT FUNDING		INHOUSE FUNDING	
			ALLOCATED (\$)	EXPENDED (\$)	REMAINING (\$)	EXPENDED (\$)
78	1	870,000	743,000	634,500 ( 85%)	127,000	127,000 (100%)
79	1	495,000	387,800	365,900 ( 94%)	107,200	107,200 (100%)
80	1	400,000	432,000	204,200 ( 61%)	28,000	28,000 (100%)
81	2	1,026,000	797,000	728,800 ( 91%)	229,000	74,900 ( 32%)
82	4	3,953,000	1,942,000	1,740,500 ( 89%)	2,011,000	443,700 ( 22%)
83	0	0	0	0 ( 0%)	0	0 ( 0%)
84	3	1,067,600	1,047,600	424,600 ( 40%)	20,000	20,000 (100%)
85	5	1,484,000	1,369,000	30,000 ( 2%)	124,000	31,300 ( 25%)
86	7	3,441,000	874,000	0 ( 0%)	3,353,600	0 ( 0%)
<b>TOTAL</b>	<b>24</b>	<b>12,796,600</b>	<b>6,796,800</b>	<b>4,168,560 ( 61%)</b>	<b>5,999,800</b>	<b>31,600 ( 13%)</b>

AUTHORIZED FUNDING

CONTRACT ALLOCATED 53%

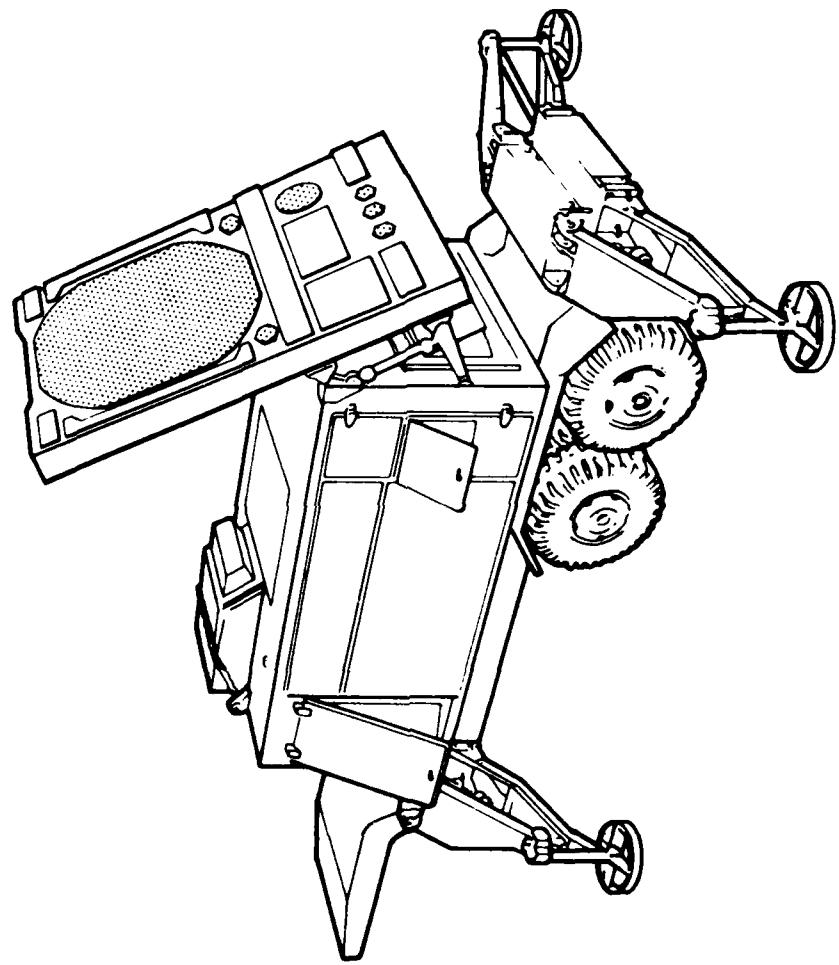
INHOUSE REMAINING 46%

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM  
 SUMMARY PROJECTIONS AT USE & EXPENDITURE  
 2ND SEMIANNUAL SUBMISSION CM-85 RCS DRCHI-301

PROJ NO.	TITLE + STATUS	AUTHORIZED VALUES (\$000)	CONTRACT VALUES (\$000)	EXPENDED, ORIGINAL LABOR AND MATERIAL AND PROJECTED COMPLETE DATE		
				PRESENT PROJECTED COMPLETE COMPLETE DATE	PROJECTED COMPLETE COMPLETE DATE	COMPLETE COMPLETE DATE
D 74 5052	ARMY ENGINEERING DESIGN HANDBOOK FOR PRODUCTION SUPPORT	870.0	743.0	127.0	NOV 79	SEP 86
D 79 5C52	ARMY ENGINEERING DESIGN HANDBOOKS FOR PRODUCTION SUPPORT	495.0	387.8	107.2	MAY 83	AUG 86
D 80 5052	ARMY ENGINEERING DESIGN HANDBOOKS FOR PRODUCTION SUPPORT	460.0	432.0	28.0	JAN 83	JAN 87
D 81 5052	ARMY ENGINEERING DESIGN HANDBOOKS FOR PRODUCTION SUPPORT	531.0	392.0	39.0	JAN 84	FEB 87
D 82 5052	ARMY ENGINEERING DESIGN HANDBOOKS FOR PRODUCTION SUPPORT	580.0	542.0	37.0	SEP 83	JUL 86
D 84 5052	ARMY ENGINEERING DESIGN HANDBOOKS	546.0	526.0	20.0	MAR 85	DEC 86
D 85 5052	ARMY ENGRG DESIGN HANDBOOKS F/PRODUCTION SUPPORT	424.0	375.0	6.0	SEP 86	DEC 86
D 86 5052	ARMY ENGRG DESIGN HANDBOOKS F/PRODUCTION SUPPORT	91.0	87.4	0	JUL 87	JUL 87

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM  
 SUMMARY PROJECT STATUS REPORT  
 2ND SEMIANNUAL SUBMISSION CY-85 RCS-DRMT-301

PROJ NO.	TITLE + STATUS	PRESENT EXPENDED - ORIGINAL - PROJECTED AUTHORIZED - LABOR AND COMPLETE VALUES AND DATE MATERIAL DATE (\$000) (\$000) (\$000)			
		CONTRACT (\$000)	(\$000)	(\$000)	(\$000)
C 84 0002	MHT CAN APPLICATION OF RUBUTICS TO SHELTER REFINISHING	370.0	370.0		OCT 86
C 82 2002	LETTERKENNY EVAL ANALYSIS + PLANNING (LEAP) PROGRAM	2,700.0	1,400.0	307.9	JUN 86
C 85 2002	LETTERKENNY EVAL ANALYSIS + PLANNING (LEAP) PROGRAM	20.0		JUN 86	JUN 86
C 84 2002	LETTERKENNY EVAL ANALYSIS + PLANNING (LEAP) PRGRAM	1,900.0		JUN 86	JUN 86
G 85 3001	POWER AND INERTIA SIMULATOR (PAISI) COMBAT VEHICLE TESTING	965.0	985.0		JUL 87
G 86 3001	POWER + INERTIA SIMULATOR (PAISI) COMBAT VEHICLE TESTING	1,000.0			MAY 88
G 81 4002	ROBOTIZED WELDING OF M113AZ SUSPENSION	495.0	405.0	35.9	SEP 81
G 82 4002	ROBOTIZED WELDING OF M113AZ SUSPENSION -----DELINQUENT STATUS REPORT-----	374.0		AUG 84	JUN 86
G 82 4004	AUTOMATED DISASSEMBLY OF DOUBLE PIN TRACK	299.0			
G 85 6003	CCAD INTEGRATED MODERNIZATION PROGRAM -----DELINQUENT STATUS REPORT-----	25.0		25.0	JUN 87
G 86 6003	CORPUS CHRISTI ARMY DEPOT INTEGRATED MODERNIZATION PROGRAM -----JUST FUNDED. NO 301 REQUIRED.-----			98.8	SEP 83
H 85 6100	ROBOTIC REPAIR OF PRINTED CIRCUIT BOARDS - PHASE 1 -----DELINQUENT STATUS REPORT-----				MAK 86
H 85 6100	ROBOTIC REPAIR OF PRINTED CIRCUIT BOARDS - PHASE 1 -----JUST FUNDED. NO 301 REQUIRED.-----				JUN 87
C 86 7004	AUTOMATED ENGINE BLOCK MACHINING	450.0			SEP 88
G 86 1007	ENGINE CONTAINER SEALING-CAM -----JUST FUNDED. NO 301 REQUIRED.-----				JUN 85
G 84 8002	ANAD SUBASSEMBLY MODERNIZATION -----DELINQUENT STATUS REPORT-----	151.6	151.6		JUN 86



**LABORATORY COMMAND  
(LABCOM)**

LABORATORY COLUMNS CURRENT FUNNING STATUS, 2ND CY85

CURRENT FUNDING STATUS: 2ND CY85

FISCAL YEAR	NO. OF PROJECTS	AUTHORIZED FUNDS ( \$ )	CUMULATIVE FUNDING		INHOUSE FUNDING	
			ALLOCATED ( \$ )	EXPENDED ( \$ )	REMAINING ( \$ )	EXPENDED ( \$ )
19	1	1,272,100	1,214,100	1,036,900 ( 85% )	58,000	58,000 ( 100% )
60	0	0	0	0 ( 0% )	0	0 ( 0% )
61	3	2,199,900	2,024,400	1,872,900 ( 92% )	171,000	170,900 ( 99% )
62	3	2,211,600	2,096,600	2,922,100 ( 97% )	314,800	239,800 ( 76% )
63	0	0	0	0 ( 0% )	0	0 ( 0% )
64	3	935,000	526,000	526,000 ( 100% )	409,000	160,000 ( 39% )
65	14	5,049,000	2,441,000	1,833,600 ( 80% )	2,808,000	348,000 ( 12% )
66	12	2,915,000	690,000	0 ( 0% )	2,025,000	5,000 ( 0% )
67	36	15,532,600	9,796,800	8,001,500 ( 82% )	5,785,800	981,700 ( 16% )

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM  
 SUMMARY PROJECT STATUS REPORT  
 2ND SEMIANNUAL SUBMISSION CY 85 RCS DRCT-301

PROJ NO.	TITLE + STATUS	AUTH- RIZED	CONTRACT VALUES (\$000)	EXPENDED LABOR AND MATERIAL (\$000)	PRESENT PROJECTED COMPLETE DATE	
					(\$000)	(\$000)
H 64 5010	MILLIMETER-WAVE SOURCES FOR 60 AND 94 GHZ -----DELINQUENT STATUS REPORT-----		209.0			
H 85 5010	HYBRID MODULATOR F/PULSED IMPATT MILLIMETER WAVES SOURCE	650.0	500.0	150.0	MAY 86	MAY 86
H 82 5011	INDIUM-PHOSPHIDE GUNN DEVICES -----DELINQUENT STATUS REPORT-----	1,227.1	1,118.1	109.0	AUG 84	JUN 86
H 82 5010	BONDED GRID ELECTRON GUN	997.5	883.7	113.6	MAR 84	MAY 86
H 85 5010	IMPROVED TUBE -----DELINQUENT STATUS REPORT-----	576.0	495.0	80.9	JUL 83	JUN 86
H 81 5041	MILLIMETER WAVE MIXERS AND ARRAYS -----DELINQUENT STATUS REPORT-----	526.0	526.0		AUG 86	JUN 86
H 64 5107	EHF SOLID STATE AMPLIFIER -----DELINQUENT STATUS REPORT-----	407.0	407.0		JUL 86	JUL 86
H 85 5107	EHF SOLID STATE AMPLIFIER	800.0	800.0		JAN 87	JAN 87
H 82 5109	PRECISION LU-CLOST SURF ACOUSTIC WAVE DELAY LINES F/UHF APPL -----DELINQUENT STATUS REPORT-----	485.0	450.0	34.0	DEC 85	DEC 85
H 60 5119	PRECISION HIGH QUALITY X-RAY MASKS	95.0	90.0	0.3	MAR 86	MAR 86
H 82 5162	CXJAM BATTERY MANUFACTURING TECHNOLOGY - PHASE III	750.0	656.0	44.0	SEP 85	MAK 86
H 30 5162	CXJAM BATTERY MANUFACTURING TECHNOLOGY-PHASE III	200.0	160.0	16.0	OCT 84	JUN 86
H 42 5164	AUTOMATIC RETICLE INSPECTION SYSTEM, PHASE III	20.0	20.0	4.7	JUN 86	JUN 86
H 82 5174	AUTO SPLIT PRUG CUNT F/PRUD ZINC XIDE ACOUSTIC DEVICES - C4M	681.0	681.0		APR 82	JUN 86
H 82 5176	AUTO SPUTTERING PROCESS CONTROL FOR ZNC -----DELINQUENT STATUS REPORT-----	299.0	220.0	60.0	DEC 87	MAY 86
H 82 5187	FURABLE MILLIMETER WAVE INP GUNN SOURCES					
H 82 5187	FURABLE MILLIMETER WAVE INP GUNN SOURCES -----JUST FULDOD. NO 301 REQUIRED-----					
H 82 5187	MICROS ADJUSTMENT F/ENVIRON STRESS ON ILECT CIRCUIT METALS	8.0	8.0		DEC 85	JUN 86

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM  
 SUMMARY PROJECT STATUS REPORT  
 2ND SEMIANNUAL SUBMISSION CY 85 RCS DRCHI-301

PROJ. #. TITLE + STATUS

PROJ. #.	TITLE + STATUS	AUTHO- RIZED (\$000)	CONTRACT VALUES (\$000)	EXPENDED LABOR AND MATERIAL (\$000)	PRESENT PROJECTED COMPLETE DATE
H 86 5193	PROCESS ADJUSTMENTS F/ENVIRON STRESS ON ELECT CIRCUIT METALS -----JUST FUNDED. NO 301 REQUIRED.				
H 85 5209	HIGH SPEED DIGITAL TO ANALOG CONVERTER -----DELINQUENT STATUS REPORT-----				
H 86 5209	HIGH SPEED DIGITAL TO ANALOG CONVERTER (VHSIC) -----DELINQUENT STATUS REPORT-----		1,500.0		FEB 02 MAR 06
H 85 5248	ADVANCED WAFER IMAGING SYSTEM (AWIS) -----DELINQUENT STATUS REPORT-----		1,900.0		MAR 06
H 86 5248	ADVANCED WAFER IMAGING SYSTEM (VHSIC) -----JUST FUNDED. NO 301 REQUIRED.				
H 82 5251	AUTOMATIC SEMI WAFER INSPECTION AND METROLOGY SYSTEM -----JUST FUNDED. NO 301 REQUIRED.		600.0		JAN 87
H 86 5251	AUTO SEM WAFER INSPECTION AND METROLOGY SYS (VHSIC) -----JUST FUNDED. NO 301 REQUIRED.				MAR 87
H 85 5272	TAPE AUTOMATED BUNDLING (TAB) -----DELINQUENT STATUS REPORT-----				
H 86 5272	TAPE AUTOMATED BONDING (VHSIC) -----JUST FUNDED. NO 301 REQUIRED.				
H 85 5273	FIRST LEVEL PACKAGING AND INTERCONNECTIONS (VHSIC) -----DELINQUENT STATUS REPORT-----				
H 86 5273	FIRST LEVEL PACKAGING AND INTERCONNECTIONS (VHSIC) -----JUST FUNDED. NO 301 REQUIRED.				
H 85 5274	MULTICHIP PACKAGES (VHSIC) -----DELINQUENT STATUS REPORT-----				
H 86 5274	MULTICHIP PACKAGES (VHSIC) -----JUST FUNDED. NO 301 REQUIRED.				
H 86 5261	E-BEAM AND X-RAY RESISTS (VHSIC)		500.0		JUN 08
H 79 5067	PROCESSING HIGH STABILITY QUARTZ CRYSTAL UNIT		1,072.1	1,0214.1	MAR 01
H 82 9905	LOG-CUST MENSCHLICHE GALLIUM ARSENIDE MICROWAVE INTEGRATED CIRCUITS -----DELINQUENT STATUS REPORT-----		967.0	895.0	SEP 04
H 81 5909	PRODUCTION TECHNIQUES FOR SILICON MW POWER TRANSISTORS -----DELINQUENT STATUS REPORT-----		942.9	852.9	SEP 03



**MATERIALS TECHNOLOGY LABORATORY  
(MTL)**

## MATERIALS TECHNOLOGY LABORATORY

### CURRENT FUNDING STATUS, 2ND CY85

FISCAL YEAR	NO. OF PROJECTS	AUTHORIZED FUNDS (\$)	CONTRACT FUNDING		INHOUSE FUNDING REMAINING (\$)
			ALLOCATED (\$)	EXPENDED (\$)	
81	1	4,349,000	1,509,000	1,509,000 (100%)	2,840,000 (100%)
82	1	4,573,000	1,920,000	1,920,000 (100%)	2,653,000 (100%)
83	1	2,149,000	656,600	656,600 (100%)	1,492,400 ( 83%)
84	2	4,312,000	1,790,900	128,700 ( 7%)	2,521,100 ( 95%)
85	3	4,275,000	1,866,900	49,800 ( 2%)	2,408,100 ( 95%)
86	5	2,596,000	1,584,900	0 ( 0%)	1,011,100 ( 99%)
TOTAL	13	22,254,000	9,328,300	4,264,100 ( 45%)	12,925,700 ( 96%)

AUTHORIZED FUNDING      CONTRACT ALLOCATED 42%      INHOUSE REMAINING 58%

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM  
 SUMMARY PROJECT STATUS & REPORT  
 2ND SEMIANNUAL SUBMISSION CY 85 RCS DRCHT-301

PROJ. NO.	TITLE + STATUS	AUTH- RIZED VALUES (\$000)	CONTRACT VALUES (\$000)	EXPENDED LABOR AND MATERIAL (\$000)	ORIGINAL PROJECTED COMPLETE DATE	PRESENT PROJECTED COMPLETE DATE
M 86 5001	DIAPHRAGM TEST MACHINE FOR MLRS FLUIDIC GENERATOR -----JUST FUNDED. NO 301 REQUIRED.-----					
M 86 5002	PATRIOT FUZE FLEX FIXTURE/ACCEPTANCE TEST LEVELS -----JUST FUNDED. NO 301 REQUIRED.-----					
M 85 5013	M732A FUZE POWER SUPPLY LEAK TEST SET -----DELINQUENT STATUS REPORT-----					
M 86 5013	M732A FUZE POWER SUPPLY LEAK TEST SET -----JUST FUNDED. NO 301 REQUIRED.-----					
M 81 6350	MATERIALS TESTING TECHNOLOGY (MTT)	4,349.0	1,509.0	2,840.0	UCT 83	JCT 86
M 81 6350 2224	AUTOMATED ANTENNA PATTERN MEASUREMENT -----DELINQUENT STATUS REPORT-----					
M 81 6350 2401	CANNON TUBE AUTOMATIC MAGNETIC BURESCOPE INSPECTION	362.0	294.0	68.0	DEC 85	
M 91 6350 2815	CANNON TUBE AUTOMATED CHROME PLATE THICKNESS MEASUREMENT	70.0		70.0	UCT 82	FEB 86
M 81 6350 2477	IMAGE INTENSIFIER SYSTEM VEILING CLARE TESTER	103.0		103.0	SEP 84	DEC 85
M 84 6350	MATERIALS TESTING TECHNOLOGY (MTT)	4,573.0	1,920.0	2,653.0	OCT 84	UCT 86
M 84 6350 0001	QUALITY ENGINEERING ACTIVITIES -----DELINQUENT STATUS REPORT-----					
M 82 6350 2042	AUTOMATED CUSTOMER SUPPORT SYSTEM -----DELINQUENT STATUS REPORT-----					
M 82 6350 2042	TRACK TEST MACHINE	65.0			JUN 85	
M 82 6350 2011	M42/M46 MAGNETIC FLUX LEAKAGE INSPECTION	125.0		100.0	FEB 84	MAK 86
M 82 6350 2076	PROTOTYPE INFRARED SEEKER AND AUTO PILOT TESTING	90.0		90.0		SEP 85
M 82 6350 2073	Straightening of GJ, TUBE FORGINGS BY MEANS OF EMAT	63.0			JUN 86	MAK 87
M 82 6350 2089	PROCEDURES FOR INSPECTING + MONITORING THERMOPLASTIC RESINS	80.0			JUN 85	SEP 86
M 82 6350 2091	MLRS MATERIAL SCREENING TEST	175.0			DEC 84	MAK 86
M 82 6350 2092	MLRS IMAGING OF REFLECTIVE EFFECTS BY COMPUTEK CONTROL	85.0			DEC 83	JUL 86

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM  
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PRJN#C.	TITLE + STATUS	AUTHO- RIZED (\$000)	CONTRACT VALUES (\$000)	EXPENDED LABOR AND MATERIAL (\$000)	ORIGINAL PROJECTED COMPLETE DATE	PRESENT PROJECTED COMPLETE DATE
M 82 0350 2901 LASER AIMING DEVICE	-----	2,03.0	-----	-----	AUG 84	APR 86
M 82 0350 2916 AUTOMATING DEPOT REBUILD COMPONENT DIMENSIONAL INSPECTION	-----	200.0	-----	-----	JUL 85	APR 87
M 82 0350 2919 AUTO RESIDUAL STRESS TEST OF GUN TUBES + OTHER RELATED COMP	-----	120.0	-----	-----	NOV 83	JAN 86
M 83 0350 MATERIALS TESTING TECHNOLOGY (MTT)	-----	2,149.0	656.6	1,243.4	OCT 84	JCT 86
M 83 0350 QDOL QUALITY ENGINEERING ACTIVITIES	-----	-----	-----	-----	-----	-----
M 83 0350 0002 AUTOMATED CUSTOMER SUPPORT SYSTEM	-----	-----	-----	-----	-----	-----
M 83 0350 0002 AUTOMATED CUSTOMER SUPPORT SYSTEM REPORT-----	-----	-----	-----	-----	-----	-----
M 83 0350 2876 FRUITYPE INFRARED SPECTRUM AND AUTOPILOT TESTING	-----	310.0	-----	310.0	-----	SEP 85
M 83 0350 2889 PROCEDURES FOR INSPECTING + MONITORING THERMOPLASTIC RESINS	-----	42.0	-----	-----	-----	SEP 86
M 83 0350 2896 STANDARDIZED SOFTWARE TEST FACILITIES	-----	191.0	-----	-----	SEP 83	APR 86
M 83 0350 2962 AUTOMATION OF 65 DEGREE-EL PROPPELLANT SURVEILLANCE TEST	-----	-----	-----	-----	SEP 85	SEP 85
M 83 0350 2972 CAPILLARY GAS CHROMATOGRAPHIC TEST OF ARMY SOLID PROPELLANTS	-----	-----	-----	-----	SEP 83	FFB 85
M 83 0350 2977 VEILING CLEAR TESTER FOR IMAGE INTENSIFIER SYS	-----	83.0	-----	83.0	-----	SEP 85
M 83 0350 2980 PORTABILITY OF TEST SOFTWARE FOR VHSIC CHIEF	-----	90.0	-----	90.0	-----	DEC 83
M 83 0350 2981 FLUID POWER SUPPLY ACCELERANCE TESTER	-----	-----	-----	-----	JUL 85	JUL 85
M 84 0350 MATERIALS TESTING TECHNOLOGY (MTT)	-----	4,062.0	1,662.2	2,395.0	OCT 85	JUL 86
M 84 0350 QDOL QUALITY ENGINEERING ACTIVITIES	-----	-----	-----	-----	-----	-----
M 84 0350 0002 AUTOMATED CUSTOMER SUPPORT SYSTEM	-----	-----	-----	-----	-----	-----
M 84 0350 2642 AUTO PENETRATING RADIATION TECH FOR PRODUCT EVALUATION	-----	100.0	-----	-----	SEP 84	SEP 85
M 84 0350 2676 FRUITYPE INFRARED SPECTRUM AUTO PILOT TESTING	-----	150.0	-----	150.0	SEP 84	SEP 85

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PROJ NO.	TITLE + STATUS	AUTHU- RIZED	CONTRACT VALUES (\$000)	EXPENDED LABUR AND MATERIAL (\$000)	PRESENT PROJECTED COMPLETE DATE
M 84 6350 2867	-----DELINQUENT STATUS REPORT-----				JUN 84
M 84 6350 2889	PROCEDURES FOR INSPECTING + MONITORING THERMOPLASTIC RESINS		50.0		SEP 86
M 84 6350 2891	REFLECTIVE MATERIAL SCREENING TEST		155.0		MAR 86
M 84 6350 2895	NDT OF ADVANCED COMPOSITES FOR BRIDGING				MAR 85
M 84 6350 2906	-----DELINQUENT STATUS REPORT-----				AUG 85
M 84 6350 2914	STANDARDIZED SOFTWARE TEST FACILITIES		318.0		SEP 85
M 84 6350 2916	AUTO ANALYTICAL + CONTROL SYSTEM FOR GAS LIFE TESTER		18.0		FEB 85
M 84 6350 2916	AUTOMATIC DEPUT REBUILD COMPONENT DIMENSIONAL INSPECTION		308.0		JUL 86
M 84 6350 2926	TESTING OF M55 DETONATOR STAB SENSITIVITY AND OUTPUT				APR 85
M 84 6350 2928	-----DELINQUENT STATUS REPORT-----				DEC 85
M 84 6350 2929	IN-PROCESS THREAD FORM INSPECTION		135.0		APR 86
M 84 6350 2930	EVAL OF CHROMIUM ADHESION IN LARGE CALIBER GUNS		78.0		MAR 86
M 84 6350 2931	IDENTATION TEST FOR YIELD STRENGTH MEASUREMENT				MAY 85
M 84 6350 2933	-----DELINQUENT STATUS REPORT-----				JUN 86
M 84 6350 2934	STABLE LIGHT SOURCE FOR LOW LEVEL PHOTOLUMINESCENCE MEAS RADIUM		79.0		APR 85
M 84 6350 2934	APPL OF AN X-RAY TV SYSTEM FOR RECORD + PRJCT OF DIFFRAT PAT		62.0		FEU 86
M 84 6350 2940	PROFILING/TEST WHICH RESPONDE FUNCTIONAL ACCELERATION TESTER		109.0		JUL 86
M 84 6350 2945	DALLISTIC SIMULATOR - SHOCK TESTING OF ARMAMENT COMPONENTS		160.0		JUN 86
M 84 6350 2974	SELECTIVE DETECTION OF DOUBLE-BASE STABILIZERS + DECIMP PRC		83.0		JUN 85
M 84 6350 2976	TESTING AND EVALUATION OF QUARTZ CRYSTAL RESONATORS		100.0		JCT 85
M 84 6350 2979	PHOTOLUMINESCENCE TESTING OF GAAS PHOTOCATHODES		230.0		MAR 86
M 84 6350 2980	TEST SOFTWARE FOR VHSIC CHIPS		165.0		AUG 85
M 84 6350 2981	-----DELINQUENT STATUS REPORT-----				JUN 86
M 84 6350 2982	-----DELINQUENT STATUS REPORT-----				APR 85
M 84 6350 2983	-----DELINQUENT STATUS REPORT-----				MAR 85

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PROJ. NO.	TITLE + STATUS	AUTHO- RIZED (\$000)	CONTRACT VALUES (\$000)	EXPENDED LABOR AND MATERIAL (\$000)	ORIGINAL AND MATERIAL DATE (\$000)	PRESENT PROJECTED COMPLETE DATE
M 84 6350 2989 DEPCT INSP OF TRANSMISSION VALVE BODY -----DELINQUENT STATUS REPORT-----						DEC 84
M 84 6350 3006 ACCUSTIC EMISSION MONITORING/CONTROL OF GUN TUBE STRAIGHTEN		15.0		15.0	SEP 84	DEC 85
M 84 6350 3015 DIGITAL IMAGE AMPLIFICATION X-RAY SYSTEM (DIAX)		110.0		JAN 85	APR 86	
M 84 6350 3015 METHODOLOGY FOR VERIFYING EDDY CURRENT + ULTRASONIC INSP		84.0		JAN 86	JAN 86	
M 84 6350 3017 AUTOMATED ACCURACY TARGET SCURING SYSTEM -----DELINQUENT STATUS REPORT-----				JUN 85	JUN 85	
M 84 6350 3021 MECH ACCEPT TEST METHODS FOR PENETRATOR COMP AND MATERIALS		50.0		JUN 86	JUN 86	
M 84 6350 3127 120 MM GUN TUBE CHROME PLATE EVALUATION SYSTEM		27.0		JUL 86	UCT 86	
M 84 6350 3045 FLUIDIC GENERATOR HIGH ALTITUDE SIMULATOR		100.0		MAR 85	SEP 85	
M 84 6350 3193 MAGNETIC FLUX LEAKAGE INSPECTION OF THE 80MM M72U MORTAR		67.0		FEB 86	FEB 86	
M 85 6350 MATERIALS TESTING TECHNOLOGY (MTT)		4,025.0	1,637.6	2,387.5	UCT 85	UCT 86
M 85 6350 2225 TRI-AXIAL VIBRATION TEST PROCS FOR MISSILE + ARTILLERY FUZ		60.0		1.5	MAR 86	JUL 85
M 85 6350 2445 ULTRASONIC TIRE INSPECTION		94.0				SEP 86
M 85 6350 2642 ADV PENETRATING RADIATION TECH FOR PRODUCT EVALUATION		260.0		<60.0	SEP 87	SEP 85
M 85 6350 2676 PROTOTYPE INFRARED SEEKER + AUTOPILOT TESTING		51.0		51.0	SEP 85	SEP 85
M 85 6350 2679 STRAIGHTENING OF GUN TUBE FORGINGS BY MEANS OF ERAT		166.0		JUL 86	MAR 87	
M 85 6350 2689 PROCEDURES FOR INSPECTING + MONITORING THERMOPLASTIC RESINS		50.0		42.0	FEB 86	MAR 86
M 85 6350 2691 HOLDIE MATERIAL SCREENING TEST		20.0				MAR 86
M 85 6350 2919 AUTO RESIDUAL STRESS INSP OF GUN TUBES + OTHER RELATED CLMP		70.0				AUG 86
M 85 6350 2929 EVAL OF CHROMIUM ADHESION IN LARGE CALIBER GUNS		42.0				AUG 86
M 85 6350 2930 INDENTATION TEST FOR YIELD STRENGTH MEASUREMENTS -----DELINQUENT STATUS REPORT-----				JUN 86	JUN 86	
M 85 6350 2946 PROGRAMMABLE HIGH RESPONSE FUNCTIONAL ACCELERATION TESTER		53.0		AUG 87	AUG 87	

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM  
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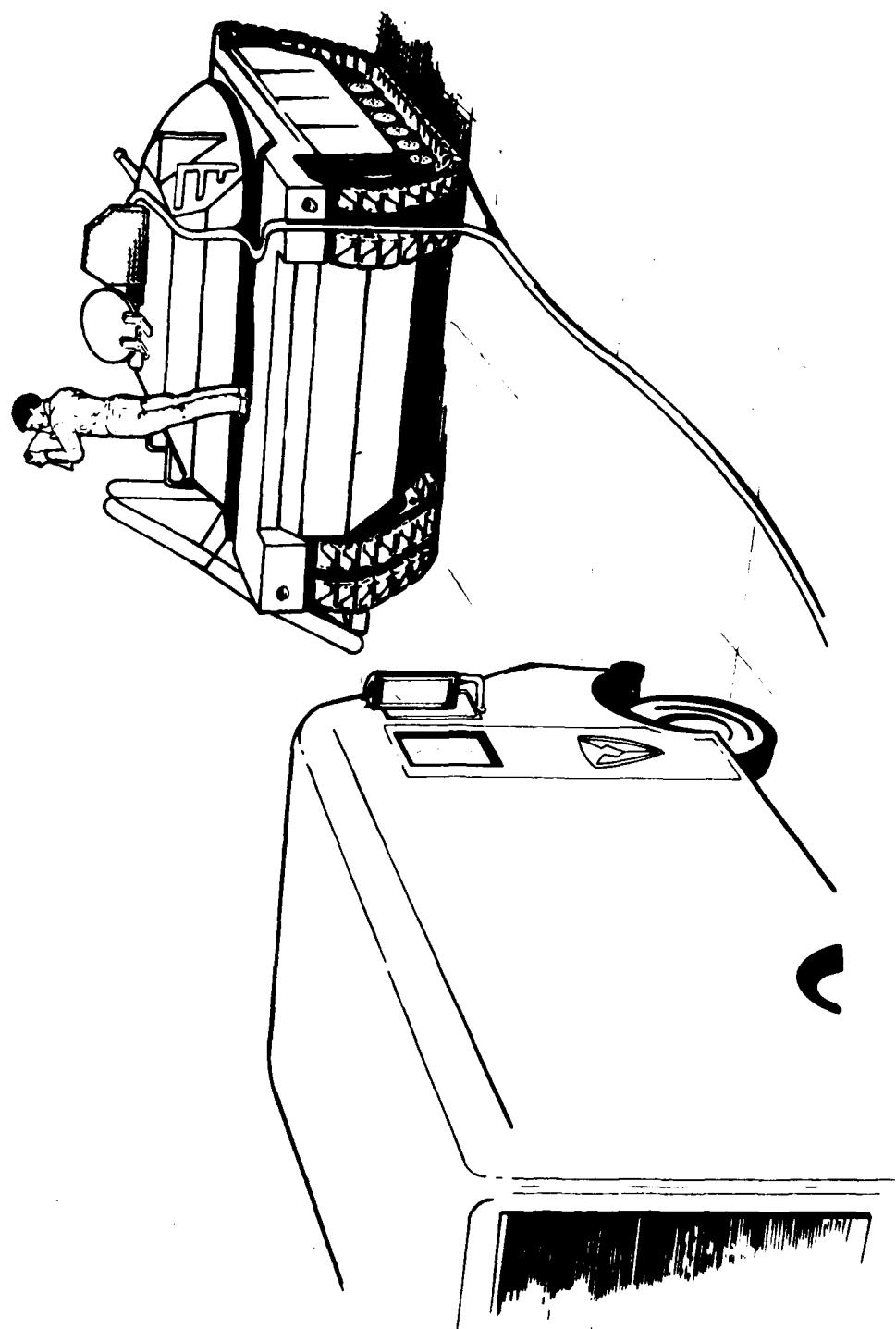
PROJ. NO.	TITLE • STATUS	AUTHO- RIZED (\$000)	CONTRACT VALUES (\$000)	EXPENDED LABOR AND MATERIAL (\$000)	ORIGINAL PROJECTED COMPLETE DATE	PRESENT PROJECTED COMPLETE DATE
M 85 6350 2965	BALLISTIC SIMULATOR - SHOCK TESTING OF ARMAMENT COMPONENTS	80.0			MAY 86	MAY 86
M 85 6350 2971	PARTICLE SIZE TESTING OF BALLISTICS MODIFIERS + LIQUIDIZERS	88.0			MAY 86	MAY 86
M 85 6350 2973	LIFFUSION PERMEABILITY+SOLUBILITY OF GASES IN MIN SIGNATURE PREP	60.0				
M 85 6350 2976	TESTING AND EVALUATION OF QUARTZ CRYSTAL RESONATORS	100.0		80.0	JAN 86	SEP 86
M 85 6350 2979	PHOTOLUMINANCE TESTING OF GAAS PHOTOCATHODES	14.0			DEC 85	MAR 86
M 85 6350 2980	PORTABILITY OF TEST SOFTWARE FOR VHSIC CHIPS	50.0				
M 85 6350 2994	ALUMINUM WELD AE MONITOR	121.0			JUN 86	JCT 86
M 85 6350 3015	RETRODUCIBILITY FOR MONITORING ULTRASONIC INSPECTION	42.0			JAN 86	JAN 86
M 85 6350 3021	MECHANICAL ACCEPTANCE TEST METHODS FOR PENETRATOR COMPONENTS	65.0			JUN 86	JUN 86
M 85 6350 3022	PRIMER IGNITION TEST SYSTEM					
-----DELINQUENT STATUS REPORT-----						
M 85 6350 3023	AUTOMATED PROPELLANT GRAIN IMAGE ANALYZER	160.0			AUG 86	
M 85 6350 3024	STANDARD SOFTWARE REQUIREMENTS ENGINEERING LANGUAGE	40.0			JCT 86	DEC 85
M 85 6350 3027	12MM GUN TUBE CHROME PLATE EVALUATION SYSTEM	175.0			JCT 86	FEB 87
M 85 6350 3045	FLUORIC GENERATOR HIGH ALTITUDE SIMULATOR	125.0			JUL 86	DEC 87
M 85 6350 3047	FIBER OPTIC COUPLED ISOTROPIC 'E' FIELD MEASUREMENT SYSTEM	225.0			AUG 87	AUG 87
M 85 6350 3055	ULTRASONIC TRANSDUCER CHARACTERIZATION	120.0			JCT 85	SEP 85
M 85 6350 3058	ESTABLISH HI-SENS UC/MS + GC/LD METHODS-ANAL F/CHEMICAL AGENT	75.0			JUL 85	FEB 86
M 85 6350 3063	CHEMICAL AGENT MONITOR TEST SYSTEM	115.0			DEC 87	JEL 87
M 85 6350 3075	NONDESTRUCTIVE TEST DEVICE FOR CDS DETECTOR				SEP 86	SEP 86
-----DELINQUENT STATUS REPORT-----						
M 85 6350 3080	TURNABLE EYESAFE LASER EVALUATION SYSTEM (TELES)	150.0			SEP 86	SEP 86
M 85 6350 3081	DIAPHRAGM TESTING MACHINE FOR MLRS FLUIDIC GENERATOR	150.0			APR 87	DEC 87
M 85 6350 3082	FLEX FIXTURE/ACCEPTANCE LEVELS FOR PATRIOT FUZE ELECTRONICS	80.0			JAN 86	JUL 86

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM  
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PROJ NO.	TITLE + STATUS	AUTHO- RIZEU (\$000)	CONTRACT VALUES (\$000)	EXPENDED LABOR AND MATERIAL (\$000)	ORIGINAL PROJECTED AND COMPLETE DATE	PRESENT PROJECTED COMPLETE DATE
M 85 6350 3C83 EFFICIENT TEST SOFTWARE FOR EVALUATING NUI MICROCHIPS	-----	160.0	-----	160.0	SEP 86	SEP 86
M 85 6350 3084 NONDESTRUCTIVE TESTING OF COMBUSTIBLE CARTRIDGE CASES	-----	232.0	-----	232.0	JUL 86	DEC 86
M 85 6350 3085 TOMOGRAPHIC AUTOMATIC INSPECTION OF MUNITIONS (TAIM)	-----	182.0	-----	182.0	MAY 87	MAY 87
M 85 6350 3C91 DETERMINATION OF SILVER IN IMPREGNATED CHARCUAL	-----	38.0	-----	38.0	MAY 86	MAY 86
M 85 6350 3094 SOFTWARE TEST DRIVERS	-----	110.0	-----	110.0	JUL 86	JUL 86
M 85 6350 3C95 INFRARED NONDESTRUCTIVE INSP (IRNDI) OF PRINTER CIRCUIT BOARD	-----	150.0	-----	150.0	FEB 86	MAR 86
M 86 6350 MANUFACTURING TESTING TECHNOLOGY	-----	2,596.0	1,584.9	1,011.0	OCT 86	OCT 86
H 86 6350 1U01 STICK PRUP AUTO INSPECT BY RADICLOGY -----JUST FUNDED. NO 301 REQUIRED.	-----	-----	-----	-----	-----	-----
M 86 6350 1U26 AUTOMATIC ARTILLERY ROCKET GRAIN INSPECTION SYS -----JUST FUNDED. NO 301 REQUIRED.	-----	-----	-----	-----	-----	-----
M 86 6350 1U06 GAS PHASE LEAK TESTER /PROTECTIVE MASKS -----JUST FUNDED. NO 301 REQUIRED.	-----	-----	-----	-----	-----	-----
M 86 6350 1901 ADVANCED MEASURE OF HOT ROTARY FURGED TUBE WALL VARIATION -----JUST FUNDED. NO 301 REQUIRED.	-----	-----	-----	-----	-----	-----
M 86 6350 2225 TRI-AXIAL VIBRATION TEST PADS /MISSILE + ARTILLERY FUZE -----JUST FUNDED. NO 301 REQUIRED.	-----	-----	-----	-----	-----	-----
M 86 6350 2889 PROCEDURES FOR INSPECTING + MONITORING THEKUMPLASTIC RESINS -----JUST FUNDED. NO 301 REQUIRED.	-----	-----	60.0	-----	-----	-----
M 86 6350 2916 AUTOMATED DEPOT REBUILD COMPONENT DIMENSIONAL INSPECTION -----JUST FUNDED. NO 301 REQUIRED.	-----	-----	-----	-----	-----	-----
M 86 6350 2932 STABLE LIGHT SOURCE F/LOW-LEVEL MEAS. OF RADIOLUMINOUS LAMPS -----JUST FUNDED. NO 301 REQUIRED.	-----	-----	-----	-----	-----	-----
M 86 6350 2447 MOBILITY MUNITURING SYSTEM -----JUST FUNDED. NO 301 REQUIRED.	-----	-----	-----	-----	-----	-----
M 86 6350 3U23 AUTOMATED PRUPELANT GRAIN IMAGE ANALYZER	-----	25.0	-----	-----	AUG 86	AUG 86
H 86 6350 3U47 FIBER OPTIC COUPLED ISCTROPIC -E- FIELD MEASUREMENT SYSTEM	-----	225.0	-----	-----	AUG 87	AUG 87
M 86 6350 3063 TEST SYSTEM FOR THE CHEMICAL AGENT MONITOR	-----	95.0	-----	-----	DEC 87	DEC 87

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM  
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PROJ. NO.	TITLE + STATUS	AUTHORIZED VALUES (\$000)	CONTRACT VALUES (\$000)	EXPENDED LABOR AND MATERIAL (\$000)	ORIGINAL PROJECTED COMPLETION DATE	PRESENT PROJECTED COMPLETION DATE
M 86 6350 3075	NOT CHARACTER OF MISSILE DETECTOR MATERIALS -----JUST FUNDED. NO 301 REQUIRED.-----					
M 86 6350 3080	TUNABLE EYESAFE LASER EVALUATION SYSTEM (TELES)	125.0		128.7	SEP 86	SEP 86
M 86 6350 3085	TOMOGRAPHIC AUTOMATIC INSPECTION OF MUNITIONS	229.0			MAY 87	MAY 87
M 86 6350 5017	EX-JAM BALLISTIC TEST EVAL EQUIPMENT -----JUST FUNDED. NO 301 REQUIRED.-----					
M 84 6390	PROGRAM IMPLEMENTATION AND INFORMATION TRANSFER -----DELINQUENT STATUS REPORT-----	250.0		128.7	MAR 85	JUN 86
M 85 6390	PROGRAM IMPLEMENTATION + INFORMATION TRANSFER -----DELINQUENT STATUS REPORT-----	250.0		229.3	0.4	MAR 86
M 86 6390	PROGRAM IMPLEMENTATION AND INFORMATION TRANSFER -----JUST FUNDED. NO 301 REQUIRED.-----					



TEST AND EVALUATION COMMAND  
(TECOM)

## TEST AND EVALUATION COMMAND

## CURRENT FUNDING STATUS, 2ND CY85

FISCAL YEAR	NO. OF PROJECTS	AUTHORIZED FUNDS (\$)	CONTRACT FUNDING		INHOUSE FUNDING REMAINING (\$)
			ALLOCATED (\$)	EXPENDED (\$)	
81	1	770,000	0	0 ( 0%)	770,000 ( 99%)
82	1	726,000	0	0 ( 0%)	726,000 ( 99%)
83	1	1,038,000	0	0 ( 0%)	1,038,000 ( 44%)
84	1	1,018,000	0	0 ( 0%)	1,018,000 ( 92%)
85	1	1,098,000	0	0 ( 0%)	1,098,000 ( 80%)
86	1	0	0	0 ( 0%)	0 ( 0%)
TOTAL	6	4,650,000	0	0 ( 0%)	4,650,000 ( 82%)

AUTHORIZED FUNDING CONTRACT ALLOCATED 0%

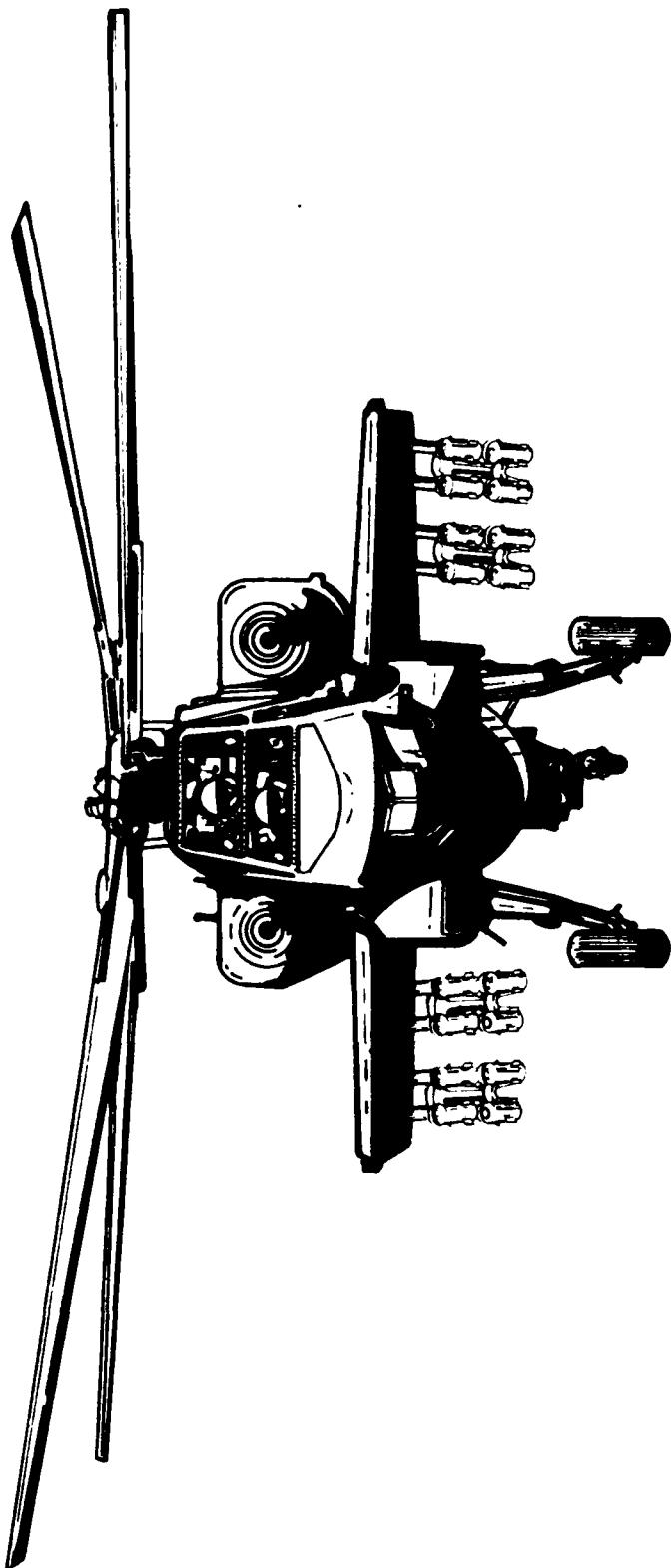
INHOUSE REMAINING 100%

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM  
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PROJ NO.	TITLE + STATUS	AUTHO- RIZED VALUES (\$000)	CONTRACT VALUES (\$000)	EXPENDED LABOR AND MATERIAL (\$000)	ORIGINAL PROJECTED AND COMPLETE DATE	PRES- ENT PROJECTED COMPLETE DATE
0 81 5071 1	TECOM PRODUCTION TEST METHODOLOGY ENGINEERING MEASURES	770.0		769.0	DEC 83	DEC 87
0 81 5071 37	ROLLOVER TEST OF MILITARY VEHICLES				DEC 83	MAR 86
0 81 5071 59	SOLAR POWERED INSTRUMENTATION VAN				DEC 83	DEC 85
0 81 5071 67	INTEROPERABILITY TEST METHODOLOGY				DEC 83	DEC 85
0 81 5071 71	COPPER CRUSHER PRESSURE GAGES				DEC 83	DEC 87
0 81 5071 76	GAMMA DOSIMETRY IMPROVEMENT + MODERNIZATION PROGRAM				DEC 83	JUL 86
0 81 5071 77	ELECTROMAGNETIC RADIATION EFFECTS/SUSCEPTIBILITY OF ARMY MAT				DEC 83	DEC 87
C 82 5071 1	TECOM PRODUCTION TEST METHODOLOGY ENGINEERING MEASURES	726.0		725.4	DEC 84	DEC 87
C 82 5071 37	ROLLOVER TEST OF MILITARY VEHICLES				MAR 86	
0 82 5071 59	SOLAR POWERED INSTRUMENTATION VAN				DEC 85	
0 82 5071 67	INTEROPERABILITY TEST METHODOLOGY				DEC 85	
C 82 5071 71	COPPER CRUSHER PRESSURE GAGES				DEC 87	
0 82 5071 76	GAMMA DOSIMETRY IMPROVEMENT + MODERNIZATION PROGRAM				DEC 86	
C 82 5071 77	ELECTROMAGNETIC RADIATION EFFECTS + SUSCEPTIBILITY OF ARMY M				DEC 87	
C 82 5071 81	BINARY MUNITIONS PRODUCTION TEST METHODOLOGY				MAR 86	
C 82 5071 90	TOXIC GAS ANAL BY GAS CHROMATOGRAPHY				DEC 84	JUL 85
C 82 5071 95	RAPID EVALUATION OF ENVIRONMENTAL HAZARDS				MAR 86	
C 83 5071 1	TECOM PRODUCTION TEST METHODOLOGY ENGINEERING MEASURES			1,038.0	436.0	DEC 85
0 83 5071 59	SOLAR POWERED INSTRUMENTATION VAN				DEC 85	
C 83 5071 67	INTEROPERABILITY TEST METHODOLOGY				JUN 83	JUL 85
0 83 5071 71	IMPROVED COPPER CRUSHER PRESSURE GAGES				DEC 87	
0 83 5071 76	GAMMA DOSIMETRY IMPROVEMENT + MODERNIZATION PROGRAM				DEC 86	
C 84 5071 1	TECOM PRODUCTION TEST METHODOLOGY ENGINEERING MEASURES			1,018.0	940.0	DEC 86

**S U M M A R Y P R O J E C T S T A T U S R E P O R T**  
**2ND SEMIANNUAL SUBMISSION CY 85 RCS DRCHT-301**

PROJ NO.	TITLE + STATUS	AUTHORIZED	CONTRACT VALUES (\$000)	EXPENDED (\$000)	ORIGINAL LABOR AND MATERIAL DATE	PRESENT PROJECTED COMPLETE DATE
0 84 5071 121	REAL TIME MEASUREMENT OF TOTAL HCL IN ROCKET MOTOR EXHAUST				DEC 86	DEC 86
0 84 5071 130	SOFTWARE INFU RETRIEVAL SYSTEM + REPOSITORY				DEC 86	MAR 86
0 84 5071 142	COMPILEATION OF PROJECTILE DRAG COEFFICIENTS				DEC 86	MAR 86
0 84 5071 37	ROLL-OVER TESTS OF MILITARY VEHICLES				SEP 84	MAR 86
0 84 5071 54	SOLAR POWERED INSTRUMENTATION VAN				DEC 86	DEC 85
0 84 5071 67	INTEROPERABILITY TEST METHODOLOGY				DEC 86	DEC 85
0 84 5071 76	UPGRADING OF THE GAMMA PLUSIMETRY PROGRAM				DEC 86	DEC 86
C 84 5071 95	KAPLID DETERM OF ENVIRON HAZARDS-BINARY AGENT PERSIST + DECAY				DEC 86	MAR 86
0 85 5071	TECOM PRODUCTION TEST METHODOLOGY ENGRS METHODS		1,098.0	950.0	DEC 87	DEC 87
0 85 5071 01	ACCEPTANCE TEST PROCEDURES				SEP 85	DEC 87
0 85 5071 1c	TEST OPERATIONS PROCEDURES - TUPS				SEP 85	DEC 87
0 85 5071 113	PROG FLOW ANALYZER TOOLS F/CMP SOFTWARE SYS SPEC ENCODERS				DEC 87	DEC 85
0 85 5071 115	ADAPTATION OF COMPUTER AID TUMUGRAPHY TO MISSILE RADIOGRAPHY				DEC 87	DEC 87
0 85 5071 121	REAL TIME MEASUREMENT OF TOTAL HCL IN ROCKET MOTOR EXHAUST				DEC 87	DEC 87
J 85 5071 130	SOFTWARE CONFIGURATION MANAGEMENT/REPOSITORY				DEC 87	DEC 87
C 85 5071 140	HUMAN FACTORS ENGINEERING FIELD INSTRUMENTATION PACKAGE				DEC 87	DEC 87
0 85 5071 143	VEHICLE PERFORMANCE RECORDER				DEC 87	DEC 87
C 85 5071 74	IMPROVE OF SMOKE MUNIT/GENERATOR PRODUCTION TEST PROCULURES				DEC 87	DEC 87
C 85 5071 76	UPGRADING OF GAMMA DUSIMETRY PROGRAM				DEC 87	DEC 87
0 85 5071 90	TOXIC GAS ANAL BY GAS CHROMATOGRAPHY				DEC 87	DEC 85
C 86 5071	TECOM PRODUCTION METHODOLOGY ENGINEERING MEASURES -----JUST FUNDED. NO 301 REQUIRED.-----					



**AVIATION SYSTEMS COMMAND  
(AVSCOM)**

## AVIATION SYSTEMS COMMAND

## CURRENT FUNDING STATUS, 28 CY85

FISCAL YEAR	NO. OF PROJECTS	AUTHORIZED FUNDS (\$)	CONTRACT FUNDING ALLOCATED (\$)		REMAINING FUNDING (\$)
			CONTRACT FUNDING ALLOCATED (\$)	REMAINING FUNDING (\$)	
31	0	645,000	581,500	63,500 ( 91%)	63,500 ( 10%)
32	0	5,105,000	4,054,600	4,067,700 ( 0%)	320,400 ( 98%)
33	4	4,437,200	3,241,500	2,700,200 ( 76%)	895,700 ( 39%)
34	11	7,078,500	3,377,400	1,525,600 ( 46%)	3,701,800 ( 44%)
35	12	3,826,800	2,577,100	152,000 ( 5%)	1,249,700 ( 54%)
36	12	0	0	0 ( 0%)	0 ( 0%)
<b>TOTAL</b>	<b>55</b>	<b>21,172,000</b>	<b>14,931,700</b>	<b>9,309,000 ( 60%)</b>	<b>6,240,300 ( 49%)</b>

AUTHORIZED FUNDING CONTRACT ALLOCATED 71%

REMAINING FUNDING 29%

S U M M A R Y P R O J E C T S T A T U S R E P O R T  
2ND SEMIANNUAL SUBMISSION LY 85 RCS DRCMT-301

PROJ. NO.      TITLE • STATUS

PROJ. NO.	TITLE • STATUS	AUTH- RIZED (\$000)	CONTRACT VALUES (\$000)	EXPENDED LABOR AND MATERIAL (\$000)	ORIGINAL PROJECTED COMPLETION DATE	PRESENT PROJECTED COMPLETION DATE
<b>MANUFACTURING METHODS AND TECHNOLOGY PROGRAM</b>						
1 81 1143	CEMERIC GAS PATH SEAL-HIGH PRESSURE TURBINE -----DELINQUENT STATUS REPORT-----	430.0	396.8	33.2	FEB 83	JUN 86
1 82 1143	CEMERIC HIGH-PRESSURE GAS PATH SEAL -----DELINQUENT STATUS REPORT-----	405.0	357.2	45.0	FEB 83	JUN 86
1 82 7291	TITANIUM POWDER METAL COMPRESSOR IMPELLER	275.0	210.0	65.0	MAR 84	JFP 86
1 83 1293	HIGH TEMPERATURE VACUUM CARBURIZING	375.0	340.0	35.0	SEP 84	JCT 86
1 84 7298	HIGH TEMPERATURE VACUUM CARBURIZING	400.0	252.4	92.0	SEP 85	JEL 86
1 85 7300	IMPROVED LOW CYCLE FATIGUE CAST ROTORS	85.0	29.8	25.2	SEP 85	SEP 86
1 85 7302	PROOF OF SERVICE COATED LNG LIFE TOOLS	400.0	248.0	140.0	FEB 82	APR 87
1 82 7302	LOW-COST TRANSPERSION-COATED CARBON FIBER LINER	500.0	460.0	70.0	MAR 85	MAR 86
1 84 7344	KIM MOLDING OF HELICOPTER COMPONENTS	175.0	124.0	50.0	AUG 85	FEB 86
1 85 7344	KIM MOLDING OF HELICOPTER COMPONENTS	205.0	114.9	12.4	FEB 87	JAN 87
1 82 7351	COMPOSITE SHAFTING FOR TURBINE ENGINES	404.0	328.9	75.0	SEP 83	APR 87
1 84 7371	INTEGRATED BLADE INSPECTION SYSTEM (IBIS) -----DELINQUENT STATUS REPORT-----	470.0	468.0	468.0	DEC 84	JUN 86
1 84 7375	AUTO INSPECTION PRECISION GRINDING OF SB GEARS -----DELINQUENT STATUS REPORT-----	215.0	104.5	36.0	DEC 84	JUN 86
1 82 7376	AUTO INSPECTION PRECISION GRINDING OF SB GEARS -----DELINQUENT STATUS REPORT-----	1,012.0	939.5	70.0	JUL 85	JUN 86
1 84 1362	LOW-COST COMPOSITE MAIN BLADE FOR THE UH-60A	555.0	477.0	157.9	SEP 84	FFL 86
1 84 1363	MOLDED HARDWARE FOR TWO AXIS DRY GYRUS	303.0	218.8	83.0	JUN 85	APR 86
1 82 1383	MOLDED HARDWARE FOR TWO AXIS DRY GYRUS	190.0	135.6	54.0	FEB 87	FEB 87
1 84 1384	COMPOSITE ENGINE GEARBOX HOUSING	670.0	120.0	120.0	DEC 85	MAY 86
1 82 1384	COMPOSITE ENGINE GEARBOX HOUSING	710.0	610.0	150.0	SEP 87	MAY 88
1 82 1384	COMPOSITE ENGINE GEARBOX HOUSING -----JUST FUNDED. NO 301 REQUIRED-----					

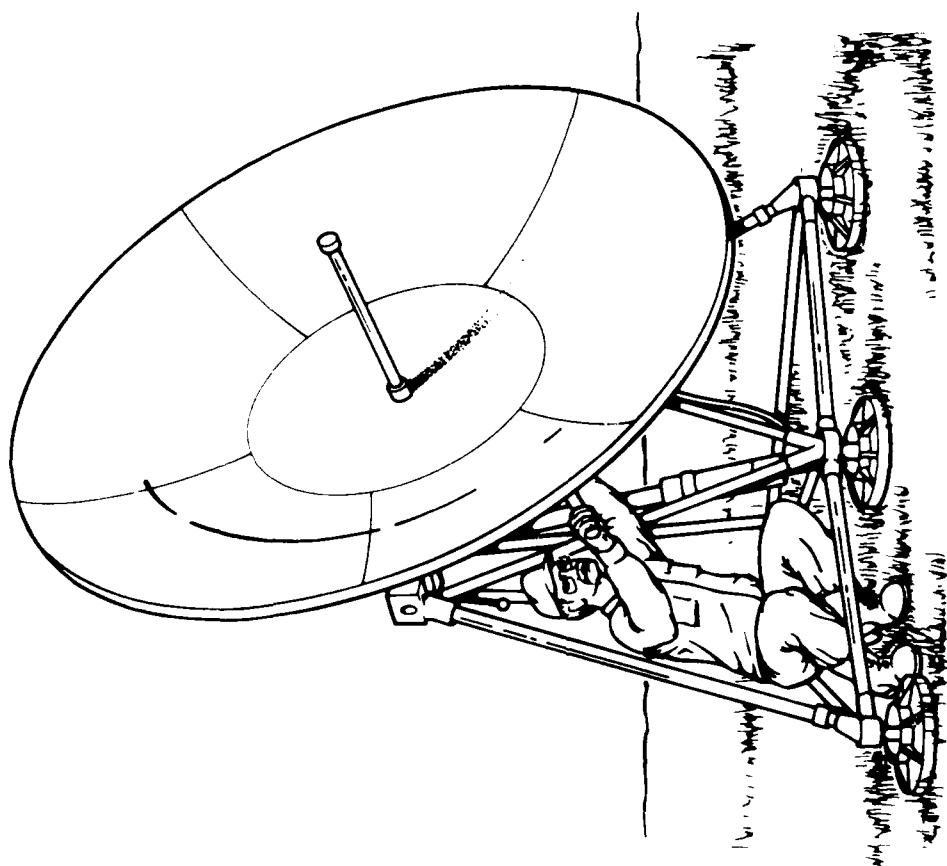
SUMMARY PROJECT STATUS REPORT  
2ND SEMIANNUAL SUBMISSION CY 85 RCS DRCMT-301

PROJ. NO.	TITLE + STATUS	AUTHO- RIZED (\$000)	CONTRACT VALUES (\$000)	EXPENDED ORIGINAL LABOR AND MATERIAL DATE (\$000)		PRESENT PROJECTED COMPLETE DATE
				EXPENDED (\$000)	ORIGINAL (\$000)	
1 84 73b9	PRODUCTION OF ALUMINUM AIRFRAME COMPONENTS	417.0	332.0	85.0	JUN 85	MAK 86
1 85 73b9	PROD OF ALUMINUM AIRFRAME COMPONENTS (SUPERPLASTIC FURNING)	225.0	139.8	85.0	JUN 85	MAK 86
1 84 7416	ADVANCED TURBINE AIRFOIL CASTINGS FOR LONG LIFE	365.0	300.0	65.0	DEC 86	JUL 86
1 85 7416	ADVANCED TURBINE AIRFOIL CASTINGS FOR LONG LIFE	316.8	22.0	156.2	JUL 86	JUL 86
1 86 7416	ADVANCED TURBINE AIRFOIL CASTINGS FOR LONG LIFE -----JUST FUNDED. NO 301 REQUIRED.					
1 84 7417	LOW-COST DISKS BY CAP -CONSOLIDATION BY ATMOSPHERIC PRESSURE	275.0	250.0	25.0	JUN 87	JUN 87
1 85 7417	LOW COST DISKS BY CONSOLIDATED ATMOSPHERIC PRESSURE	475.0	400.0	70.0	JUN 87	JUN 87
1 86 7417	LOW COST DISKS BY CAP -----JUST FUNDED. NO 301 REQUIRED.					
1 83 7427	ATTACK HELICOPTER PRODUCTIVITY IMPROVEMENT (API) PROGRAM -----DELINQUENT STATUS REPORT	1,585.0	1,265.4	129.0	MAR 84	JUN 86
1 85 7423	MMT - API PGH - BELL HELICOPTER, INC. - AHIP -----DELINQUENT STATUS REPORT	1,034.2	1,024.1	10.1	MAY 84	JUN 85
1 84 7436	ADVANCED FUSELAGE TOOLING -----DELINQUENT STATUS REPORT					
1 85 7436	LOW COST TOOLING FOR AIRFRAME COMPONENTS	522.0		62.0	NOV 87	JUL 86
1 86 7456	LOW COST TOOLING FOR AIRFRAME COMPONENTS -----JUST FUNDED. NO 301 REQUIRED.					
1 83 7465	ADVANCED COMPOSITE SENSOR SUPPORT STRUCTURE (ALST-3) -----DELINQUENT STATUS REPORT	1,443.0	892.0	174.7	APR 84	MAY 86
1 84 7465	FABRICATION TECH F/ADVANCED COMPOSITE SENSOR SUPPORT STRUCTURE -----DELINQUENT STATUS REPORT	515.0				
1 85 7465	FABRICATION TECHNIQUES FOR ADVANCED COMPOSITE SENSOR -----DELINQUENT STATUS REPORT					
1 84 7468	INTEGRATION OF ADVANCED REPAIR SANDING	500.0		241.0	JUN 84	JAN 87
1 84 7470	FLANGE HELD AUTOMATIC POWER CRIMPER	218.0	150.0	68.0	FEB 86	AUG 86
1 84 7471	PROCESS CONTROL SYSTEM FOR N/C AND CNC MACHINES	200.0	155.0	43.4	JUL 86	MAK 87

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM  
SUMMARY PROJECT STATUS REPORT  
2ND SEMIANNUAL SUBMISSION CY 85 RCS URLM1-301

TITLE + STATUS

TITLE • STATUS		AUTHORIZED (\$000)	CONTRACT VALUES (\$000)	EXPENDED (\$000)	ORIGINAL LABOR AND MATERIAL DATE	PROJECTED COMPLETE DATE	PRES- ENT PROJECTED COMPLE- TION DATE
1 65 1471	PROCESS CONTROL SYSTEM FOR N/C AND CNC MACHINES	485.0	227.0	66.0	JUL 86	JUN 87	
1 66 1472	SURFACE HARDENING OF STEELS BY LASER	455.0	425.0	30.0	DEC 85	JUN 86	
1 67 1472	SURFACE HARDENING OF STEELS BY LASER -----JUST FUNDED. NO 301 REQUIRED.-----	60.0		25.0	SEP 85	JUN 86	
1 68 1473	FIBER REINFORCED THERMOPLASTIC STRUCTURES -----FIBER REINFORCED THERMOPLASTIC STRUCTURES -----JUST FUNDED. NO 301 REQUIRED.-----	610.0	575.0	35.0	MAY 87	MAY 87	
1 69 1474	SINGLE CURVE TAIL RUTTER	148.0	118.0	30.0	NOV 85	SEP 86	
1 70 1474	SINGLE CURVE TAIL RUTTER	256.0	241.0	15.0	MAR 86	SEP 86	
1 81 1474	SINGLE CURVE TAIL RUTTER -----JUST FUNDED. NO 301 REQUIRED.-----						
1 82 1487	ADVANCED CURRENT-RESISTANT BEARINGS -----JUST FUNDED. NO 301 REQUIRED.-----						
1 85 1535	AUTOMATED PRECISION SKIVING OF SPUR GEARS BY CNC -----OBLIGATORY STATUS REPORT-----						
1 86 1548	PRECISION PROTECTION FOR COMPRESSOR AIRFILTS -----JUST FUNDED. NO 301 REQUIRED.-----						
1 87 1549	COMPUTERIZED COMPRESSOR CONTROL -----OBLIGATORY STATUS REPORT-----						
1 88 1549	COMPUTERIZED COMPRESSOR CONTROL -----JUST FUNDED. NO 301 REQUIRED.-----						
1 89 1558	AH-64 AUTOMATED WIRE HARNESS FABRICATION -----OBLIGATORY STATUS REPORT-----						
1 90 1592	TURBINE ENGINE INTEGRITY IMPROVEMENT -----OBLIGATORY STATUS REPORT-----						



**COMMUNICATIONS AND ELECTRONICS COMMAND  
(CECOM)**

## COMMUNICATIONS → ELECTRONICS COMMAND

## CURRENT FUNDING STATUS, 2AD CY85

FISCAL YEAR	NO. OF PROJECTS	AUTHORIZED FUNDS (\$)	CONTRACT FUNDING		INHOUSE FUNDING EXPENDED (\$)	INHOUSE FUNDING REMAINING (\$)
			ALLOCATED (\$)	EXPENDED (\$)		
75	1	369,200	278,700	0	0 ( 0%)	90,500 (100%)
80	2	1,360,000	1,198,500	996,500 ( 83%)	161,500	161,100 ( 99%)
81	4	5,015,300	4,716,300	4,080,800 ( 86%)	299,000	253,700 ( 84%)
82	2	2,040,000	1,855,500	1,772,000 ( 95%)	164,500	184,400 ( 99%)
83	2	1,282,500	1,253,700	1,100 (100%)	28,800	20,700 ( 71%)
84	6	7,516,800	7,189,300	6,911,300 ( 96%)	327,500	298,600 ( 91%)
85	12	3,992,400	3,788,800	2,109,000 ( 55%)	203,600	122,300 ( 60%)
86	10	3,348,100	2,442,800	0 ( 0%)	905,300	1,500 ( 0%)
<b>TOTAL</b>	<b>39</b>	<b>24,924,300</b>	<b>22,723,600</b>	<b>17,123,300 ( 75%)</b>	<b>2,260,700</b>	<b>1,133,000 ( 51%)</b>

AUTHORIZED FUNDING

CONTRACT ALLOCATED 91%

INHOUSE REMAINING 6%

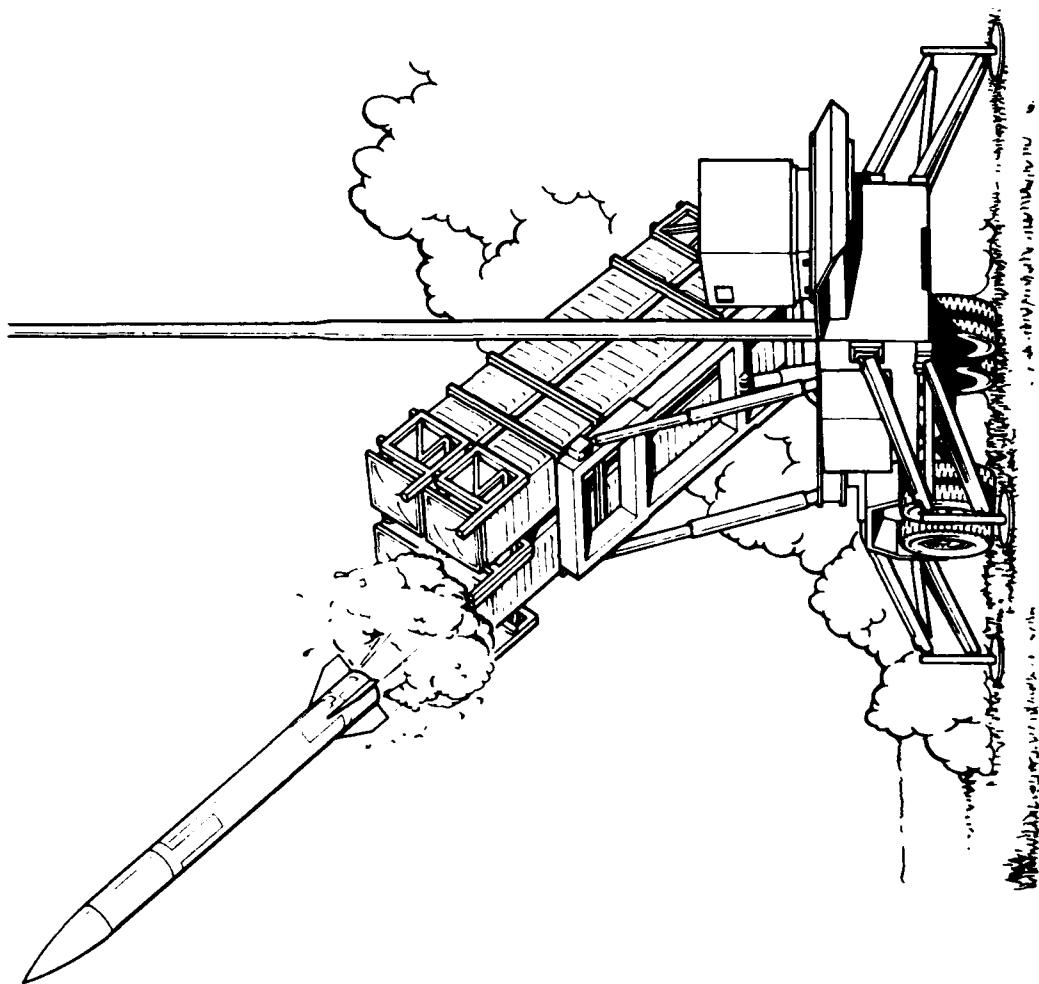
MANUFACTURING METHODS AND TECHNOLOGY PROGRAM  
 SUMMARY PROJECT STATUS REPORT  
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PROJ. NO. TITLE • STATUS

PROJ. NO.	TITLE • STATUS	AUTH- RIZED (\$000)	CONTRACT VALUES (\$000)	EXPENDED LABOR AND MATERIAL (\$000)			ORIGINAL PROJECTED COMPLETE DATE	PRESENT PROJECTED COMPLETE DATE
				LABOR AND MATERIAL (\$000)	PROJECTED COMPLETE DATE	ORIGINAL PROJECTED COMPLETE DATE		
F 81 3C50	EPITAXY OF III-V SEMICONDUCTOR PHOTODETECTORS	892.0	810.0	37.0	DEC 83	JAN 87		
F 80 3C54	PRODUCTION METHODS FOR MULTI-LAYER FILLED CIRCUITS	780.0	706.1	73.5	SEP 82	APR 86		
F 81 3C56	ELECTROLUMINESCENT NUMERIC MODULES	1,271.0	1,131.7	139.0	DEC 82	JUN 86		
F 81 3C57	HIGH STABILITY VIBRATION RESISTANT QUARTZ CRYSTALS	1,785.3	1,717.6	67.7	JUL 83	JAN 87		
F 83 3C68	INCREASE PRODUCIBILITY OF VARACTORS AND PIN DIODES	217.0	210.0		JUL 85	MAK 86		
2 84 3C69	INCREASE PRODUCIBILITY OF VARACTORS AND PIN DIODES	250.0	220.5	0.0	JUL 85	JAN 86		
2 85 3C68	INCREASE PRODUCIBILITY OF VARACTORS + PIN DIODES (CAM)	29.0	23.6		AUG 85	MAK 86		
F 82 3C63	TACTICAL GRAPHICS DISPLAY PANEL	950.0	881.5	65.4	DEC 84	JUL 86		
F 82 3C63	FM WAVE COMMUNICATIONS FRONT END MODULE (CFEM)	1,040.0	974.0	116.0	JUN 84	DEC 87		
2 95 3C90	GAIN/ASP LIGHT EMITTING DIODE PACKAGING	30.0			DEC 86	JAN 87		
2 80 3C90	GAIN/ASP LIGHT EMITTING DIODE PACKAGING	60.0			DEC 86	JAN 87		
F 83 3D94	COMMUNICATIONS TECHNOLOGY TECHNOLOGY FÜR JTI'S	1,005.5	1,043.7	20.7	SEP 84	JAN 87		
2 84 3C94	COMMUNICATIONS TECHNOLOGY TECHNOLOGY FÜR JTI'S (CAM)	1,352.0	1,352.0		DEC 85	JAN 87		
2 85 3C94	COMMUNICATIONS TECHNOLOGY TECHNOLOGY FÜR JTI'S	765.0	766.9	15.0	DEC 86	JAN 87		
2 86 3C94	COMMUNICATIONS TECHNOLOGY TECHNOLOGY FÜR JTI'S	980.0	869.0	1.0	JAN 87	JAN 87		
2 85 3155	CONTROL OF GaAs DOUBLE DIAMETER	413.0	413.0	0.0	APR 87	APR 87		
2 80 3168	CONTROL OF GaAs DOUBLE DIAMETER	211.1	204.1		APR 87	APR 87		
2 85 3111	MMT AUTOMATIC MATCHING OF IMPEDANCE	248.0	245.0	0.5	AUG 87	AUG 87		
2 86 3111	AUTOMATIC ADJUSTMENT OF MILLIMETER CIRCUITS	215.0	210.0		DEC 87	APR 87		
2 85 3129	AUTOMATED INTERCURE TRANSFER OF GLASS PREFORMS	100.0	100.0		MAY 86	JUN 87		
2 86 3129	AUTOMATED INTERCURE TRANSFER OF GLASS PREFORMS	129.0	124.0		FEB 87	FEB 87		
F 82 3501	THIRD GENERATION PHOTOCOATING ON FIBER OPTIC PLATE	500.0	492.4	87.0	MAR 87	MAR 87		
F 82 3501	LINEAR RESONANCE COULERS	485.0	485.0		APR 87	JUL 87		

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM  
 SUMMARY PROJECT STATUS REPORT  
 2ND SEMIANNUAL SUBMISSION CY 85 RCS DRCHT-301

PROJ. NO.	TITLE + STATUS	AUTHO- RIZED	CONTRACT VALUES (\$000)	EXPENDED LABOR AND MATERIAL (\$000)	PRESENT PROJECTED COMPLETE DATE
					ORIGINAL DATE
F 86 5059	LINEAR RESONANCE COOLERS - PHASE 1 (NVEOL)		533.0		NOV 86 NOV 66
H 84 5111	VAPOR GROWTH FOR THIRD GENERATION PHOTOCATHODE		321.0	321.0	SEP 85 SEP 86
H 85 5111	VAPOR GROWTH FOR THIRD GENERATION PHOTOCATHODE	61.1			SEP 86 SEP 86
H 84 5151	LIQUID PHASE EPITAXY OF HGDTE F/CUMMON MOD UET ARRAYS-PH 11	3,238.9	3,065.9	173.0	MAR 85 MAY 86
H 84 5180	LOW COST DEWAR + INTERCONNECT ASSEMBLY - PHASE 11	2,104.9	1,979.9	125.0	JUN 85 DEC 86
H 85 5180	LOW COST DEWAR + INTERCONNECT ASSEMBLY - PHASE 11	957.3	782.3	75.0	JUL 86 JEC 86
H 86 5180	HMT FOR METAL DEWAR AND UNBONDED LEADS (NVEOL)	548.0	548.0		DEC 86 DEC 86
H 84 7CL0	LASER POLARIZERS		250.0	250.0	AUG 85 JCT 86
H 85 7CL0	LASER POLARIZERS		173.0	173.0	JUL 86 JCT 86
H 86 7C00	LASER POLARIZERS (NVEOL)		157.0	157.0	JCT 86
2 85 9239	AUTOTEST OF MICROWAVE DEVICE WAFERS (CAM)	608.0	603.0	0.5	DEC 86 DEC 86
2 86 9289	AUTOTEST OF MICROWAVE DEVICE WAFERS (CAM)	352.0	326.7		DEC 86 DEC 86
2 85 9290	HMT AUTOMATIC MICROWAVE SEMICONDUCTOR DEVICE TESTING	203.0	200.0	0.3	JUL 87 JAN 87
2 86 9290	AUTOMATIC MICROWAVE SEMICONDUCTOR DEVICE TESTING	315.0			JAN 87 JAN 87
H 79 9238	MINIATURE CATHODE RAY TUBES	339.2	278.7	90.3	AUG 81 AUG 81
F 81 4651	TACTICAL MINIATURE CRYSTAL OSCILLATORS	1,007.0	1,057.0	10.0	MAR 84 MAR 84



**MISSILE COMMAND  
(MICOM)**

## MISSILE COMMAND

## CURRENT FUNDING STATUS, 2ND CY85

FISCAL YEAR	NO. OF PROJECTS	AUTHORIZED FUNDS (\$)	CONTRACT FUNDING		INHOUSE FUNDING EXPENDED (\$)	INHOUSE FUNDING REMAINING (\$)
			ALLOCATED (\$)	EXPENDED (\$)		
82	1	808,000	603,500	603,500 (100%)	204,500	204,500 (99%)
83	0	0	0	0 ( 0%)	0	0 ( 0%)
84	2	2,000,000	1,920,900	1,920,900 (100%)	79,100	79,100 ( 99%)
85	10	5,650,500	4,063,300	2,518,200 ( 61%)	1,587,200	1,041,300 ( 65%)
86	10	7,820,500	5,084,200	271,000 ( 5%)	2,736,300	110,800 ( 4%)
TOTAL	23	16,279,000	11,671,900	5,313,600 ( 45%)	4,607,100	1,435,300 ( 31%)

## AUTHORIZED FUNDING

## CONTRACT ALLOCATED 72%

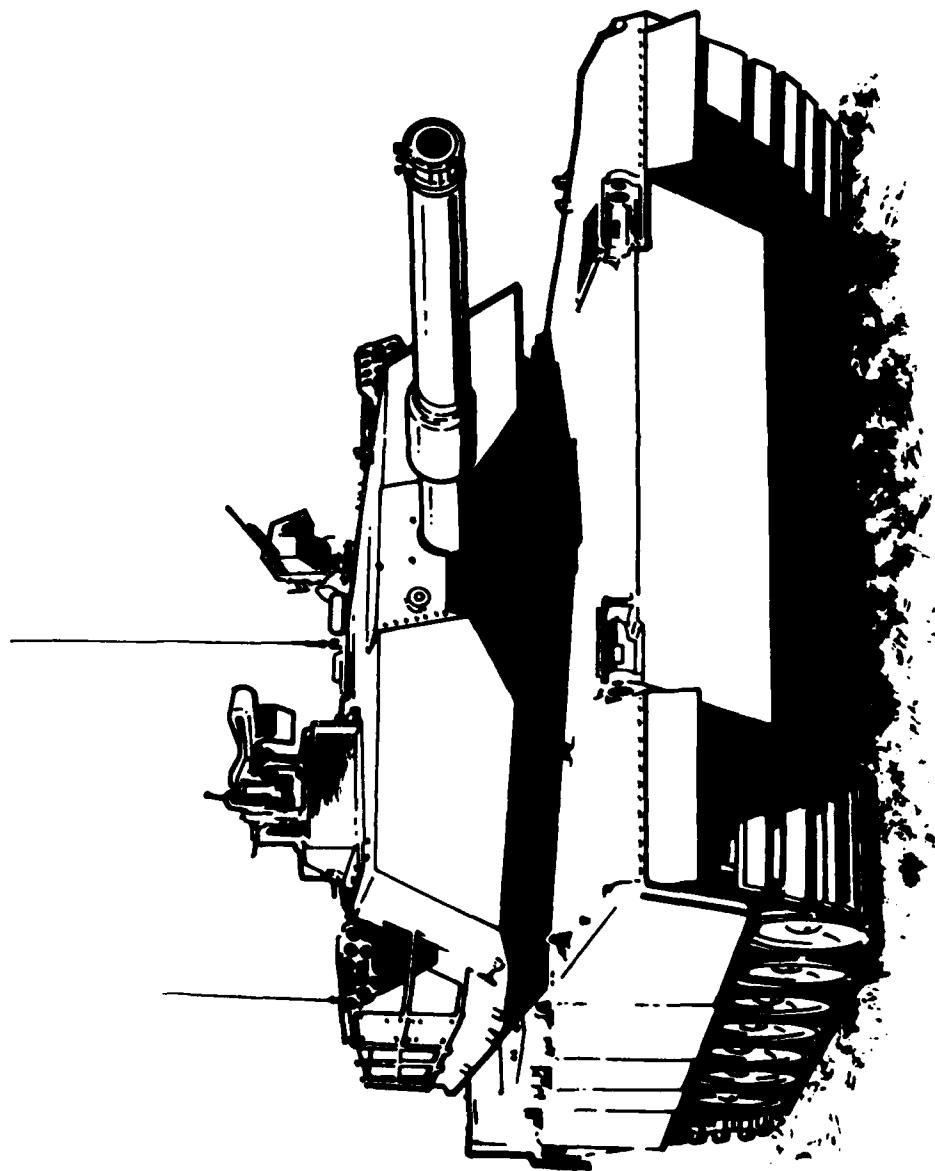
## INHOUSE REMAINING 26%

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM  
 SUMMARY PROJECT STATUS REPORT  
 2ND SEMIANNUAL SUBMISSION CY 85 RCS DRCHT-301

PROJ. NO.	TITLE + STATUS	AUTH- RIZED	CONTRACT VALUES (\$000)	EXPENDED LABOR AND MATERIAL (\$000)	ORIGINAL PROJECTED COMPLETE DATE	PRESENT PROJECTED COMPLETE DATE
					(\$000)	
3 85 1066	SEMIADDITIVE SINGLE AND MULTILAYER CIRCUITRY		425.0	397.9	27.1	MAN 66 SEP 67
3 86 1066	SEMIADDITIVE SINGLE + MULTILAYER CIRCUITRY		450.0	445.0	2.0	SEP 87
3 82 1076	AUTOMATIC RECONDUCTION OF CHIPS		800.0	603.5	204.2	FEB 84
3 85 1069	INTEGRAL RUCKET MOTOR COMPOSITE ATTACHMENTS		550.0	480.7	69.3	APR 86
3 86 1055	AUTOMATIC SEALING OF HYBRID PACKAGES		1,628.0	1,501.0	2.9	APR 87
3 84 1109	ROBOTIZED WIRE HARNESS ASSEMBLY SYSTEM		1,200.0	1,170.9	29.0	AUG 85
4 82 1120	DETECTOR GRADE CADMIUM SULFIDE (CCDS)		525.0	379.4	75.0	UCT 85
3 86 1120	DETECTOR GRADE CADMIUM SULFIDE		325.0	269.0	JAN 87	JAN 87
3 84 1124	SCANNING TDI FOCAL PLANE ARRAY DETECTORS		800.0	750.0	50.0	UCT 86
3 85 1124	IMPROVED MFG PROCESSES FOR SCANNING FOCAL PLANE SENSOR ASSY		575.0	450.0	100.0	SEP 85
3 85 1131	MNT FOR INTEGRATED 94 GHZ SUBMUNITION TRANSCIVER -----DELINQUENT STATUS REPORT-----		320.0			SEP 87
3 85 1134	KF/LASER HARDENING OF DOMES FOR DUAL MODE SYSTEMS		1,000.0	875.0	125.0	NOV 85
3 86 1134	KF/LASER HARDENING OF DOMES FOR DUAL MODE SYSTEMS		1,267.0	1,150.0	6.7	UCT 87
3 82 1144	ELECTROFORMED ASPHERIC METAL MIRROR		420.0	200.0	250.0	AUG 87
3 86 1144	ELECTROFORMED ASPHERIC METAL MIRROR		450.0	337.1	6.0	NOV 87
3 85 1147	OPTICAL FIBER WINDING		486.5	430.2	56.0	SEP 85
3 86 1147	OPTICAL FIBER WINDING		540.0		10.0	SEP 87
3 85 1148	MILLIMETER WAVE MOULDED/INTEGRATED PLASTIC RECEIVER		569.0	476.6	12.4	JUN 87
3 86 1148	MILLIMETER WAVE MOULDED/INTEGRATED RECEIVER		851.0	772.0	14.0	SEP 87
3 85 1150	LITHIUM NIOBATE LASER -SWITCHES		700.0	373.5	326.5	DEC 86
3 86 1150	LITHIUM NIOBATE LASER -SWITCHES		450.0	310.1	4.0	MAN 87
3 86 1168	AUTOMATIC TEST LF PRINTED WIRE SCAFFOLD		1,068.5		2.7	FEB 88

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM  
SUMMARY PROJECT STATUS REPORT  
2ND SEMIANNUAL SUBMISSION CY 85 RCS DRMT-301

PROJ NO.	TITLE + STATUS	AUTHO- RIZED		CONTRACT		EXPENDED		PRESENT	
		VALUES (\$000)	MATERIAL (\$000)	VALUES (\$000)	MATERIAL (\$000)	LABOR AND COMPLETED DATE	PROJECTED COMPLETION DATE	ORIGINAL DATE	PROJECTED COMPLETE DATE
3 86 2021	CIM TECHNIQUES FOR MISSILE HYBRID ASSEMBLIES	771.0	300.0	60.0	60.0	AUG 87	AUG 87	AUG 87	AUG 87



**TANK-AUTOMOTIVE COMMAND  
(TACOM)**

TANK - AUTOMOTIVE COMMAND  
CURRENT FUNDING STATUS, 2ND CY85

FISCAL YEAR	NO. OF PROJECTS	AUTHORIZED FUNDS ( \$ )	CONTRACT FUNDING		INHOUSE FUNDING REMAINING ( \$ )	
			ALLOCATED ( \$ )	EXPENDED ( \$ )	ALLOCATED ( \$ )	EXPENDED ( \$ )
81	2	6,750,000	55,300	55,000 ( 99%)	6,694,700	6,608,700 ( 98%)
82	8	6,555,000	4,857,000	3,931,500 ( 80%)	1,698,000	1,475,300 ( 86%)
83	11	5,298,000	4,303,900	3,882,900 ( 90%)	994,100	606,900 ( 81%)
84	7	4,444,000	3,249,100	2,052,000 ( 63%)	1,194,900	868,300 ( 72%)
85	14	3,307,000	2,124,000	409,000 ( 19%)	1,183,000	908,000 ( 76%)
86	9	3,260,000	1,084,000	90,000 ( 8%)	2,176,000	122,000 ( 5%)
<b>TOTAL</b>	<b>51</b>	<b>29,614,000</b>	<b>15,673,300</b>	<b>10,420,400 ( 66%)</b>	<b>13,940,700</b>	<b>10,789,200 ( 77%)</b>

AUTHORIZED FUNDING      CONTRACT ALLOCATED 53%      INHOUSE REMAINING 47%

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM

SUMMARY PROJECT STATUS REPORT

2ND SEMIANNUAL SUBMISSION CY 85 RCS DRCHT-301

PROJ NO.	TITLE + STATUS	AUTHU-RIZED (\$000)	CONTRACT VALUES (\$000)	EXPENDED ORIGINAL LABOR AND MATERIAL (\$000)	PRESENT PROJECTED COMPLETE DATE
<b>MANUFACTURING FOR CORROSION PREVENTION IN TACTICAL VEHICLES</b>					
4 84 4001	----DELINQUENT STATUS REPORT----				
4 86 4001	MFG FOR CORROSION PREVENTION IN TACTICAL VEHICLES	500.0		80.0	JAN 86
4 85 4008	COMPOSITE DRIVE SHAFTS	220.0	98.0	121.0	SEP 86
4 86 4008	COMPOSITE DRIVE SHAFTS		25.0	20.0	NOV 86
4 84 4042	FLEXIBLE MANUFACTURING TECHNOLOGY INTEGRATION	419.0		250.0	JUN 86
4 85 4086	ADVANCED CAST ARMOUR				
	----DELINQUENT STATUS REPORT----				
4 85 4087	EXPLOSIVE COMPACTION OF CERAMICS				
	----DELINQUENT STATUS REPORT----				
1 82 4575	LASER WELDING TECHNIQUES FOR MILITARY VEHICLES	308.0	277.0	9.0	UCT 84
	----DELINQUENT STATUS REPORT----				
1 82 5014	FOUNDRY CASTING PROCESSES USING FLUID FLOW + THERM ANALYS	100.0	60.0	19.0	MAR 84
4 83 5053	ADIABATIC DIESEL ENGINE COMPONENTS (PHASE I)	778.0	633.0	145.0	FEB 85
4 83 5053 01	ADIABATIC DIESEL ENGINE COMPONENTS	563.0	443.0	120.0	SEP 85
4 83 5053 02	BISQUE FIRED CERAMICS	107.0	94.0	13.0	SEP 85
4 83 5053 03	LASER BEAM MACHINING	108.0	95.9	12.0	SEP 85
4 84 5053	ADIABATIC DIESEL ENGINE COMPONENTS (PHASE II)	645.0	545.0	100.0	JUN 86
4 84 5053 01	ADIABATIC DIESEL ENGINE COMPONENTS	645.0	545.0	100.0	JUN 86
4 85 5053	ADIABATIC DIESEL ENGINE COMPONENTS (PHASE IV)	156.0		156.0	JAN 87
4 85 5053 01	ADIABATIC DIESEL ENGINE COMPONENTS	156.0		156.0	JAN 87
1 82 5054	LASER SURFACE HARDENED COMBAT VEHICLE COMPONENTS	290.0	243.0	47.0	JAN 84
	----DELINQUENT STATUS REPORT----				
4 83 5068	NEW ANTI-CORROSION MATERIALS AND TECHNIQUES (PHASE I)	164.0	134.0	50.0	SEP 85
4 86 5068	NEW ANTI-CORROSION MATERIALS	100.0		5.0	FEB 87

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				DATE	(\$000)	
1 81 5075	MILITARY ELASTOMERS FOR TRACK VEHICLES (PHASE II) -----DELINQUENT STATUS REPORT-----	200.0	55.3	93.7	SEP 82	JAN 86
1 82 5075	MILITARY ELASTOMERS FOR TRACK VEHICLES (PHASE II) -----DELINQUENT STATUS REPORT-----	200.0	52.0	136.6	SEP 83	JAN 86
4 83 5075	MILITARY ELASTOMERS FOR TRACK VEHICLES -----DELINQUENT STATUS REPORT-----	145.0		114.9	JAN 86	JAN 86
4 83 5082	FLEX MACHINING SYS (FMS) PILOT LINE F/TLV COMPS (CAM) (PH. V) -----DELINQUENT STATUS REPORT-----	350.0	349.9		DEC 84	JUN 86
4 83 5090	IMPROVED AND COST EFFECTIVE MACHINING TECHNOLOGY (PHASE V)	190.0	165.0	25.0	SEP 84	APR 86
4 83 5091	HEAVY ALUMINUM PLATE FABRICATION (PHASE I)	74.0		74.0	DEC 84	JAN 87
4 85 5091	HEAVY ALUMINUM PLATE FABRICATION	33.0		21.0	JAN 87	JAN 87
4 85 6000	LIGHTWEIGHT TILT-UP HOOD/FENDER ASSEMBLY -----DELINQUENT STATUS REPORT-----					
1 82 6057	XH1 COMBAT VEHICLE	2,312.0	1,477.0	767.0	SEP 83	MAY 86
1 82 6C57 05	MACHINE DIAGNOSTICS	1,408.0	1,105.0	303.0	SEP 83	MAY 86
1 82 6057 13	LASER CUTTING	471.0	186.0	285.0	MAY 83	MAR 86
1 62 6C57 17	MANUFACTURING METHODS FOR SPECIAL ARMORS	3,000.0		2,601.0	JAN 85	MAR 86
4 83 6057	ABRAMS M1 COMBAT VEHICLE	92.0		92.0	FEB 84	MAY 86
4 83 6C57 05	MACHINE DIAGNOSTICS	55.0		55.0	FEB 84	MAY 86
4 83 6C57 13	LASER CUTTING OF TRACKED COMBAT VEHICLE PARTS	32.0		32.0	FEB 84	MAR 86
4 84 6057	ABRAMS (M1) COMBAT VEHICLE	450.0	450.0		SEP 85	APR 86
4 84 6057 04	THERMAL AND MECHANICAL CUTTING AND BEVELING ARMOR PLATE	450.0	450.0		SEP 85	MAR 86
4 85 6057	ABRAMS M1 COMBAT VEHICLE	142.0		142.0	MAY 85	MAR 86
4 85 6057 13	LASER CUTTING	71.0		71.0	MAY 85	MAR 86
4 86 6057	ABRAMS (M1) COMBAT VEHICLE -----JUST FUNDED. NO 301 REQUIRED-----					

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4 86 6057 04	Thermal + Mechanical Cutting + Beveling -----Just Funded. No 301 Required.-----					
4 86 6057 13	Laser Cutting -----Just Funded. No 301 Required.-----					
1 82 6059 01	M2 AND M3 FIGHTING VEHICLE SYSTEM	1,585.0	1,404.0	175.0	DEC 84	MAY 86
1 82 6059 02	M2 AND M3 CAST ALUMINUM COMPONENTS	490.0	445.0	45.0	DEC 83	JAN 86
1 82 6059 03	SELF-THREADING FASTENERS	130.0	106.0	24.0	FEB 83	DEC 85
1 82 6059 04	ADHESIVE BONDING	130.0	105.0	25.0		DEC 85
1 82 6059 06	Laser Heat Treatment	130.0	107.0	20.0	SEP 84	SEP 85
1 82 6059 08	Production Methods For Composite Turret Basket	131.0	107.0	24.0	JUN 83	DEC 85
1 82 6059 20	CARC Application Processing Tech	574.0	534.0	37.0	DEC 84	MAY 86
4 83 6059 01	M2 AND M3 FIGHTING VEHICLE SYSTEM	805.0	689.0	114.0	APR 85	MAR 86
4 83 6059 13	Metal Arc Spraying	310.0	260.0	48.0	UCT 84	MAR 86
4 83 6059 17	Pre-Paint Cleaning System	325.0	275.0	50.0	OCT 84	MAR 86
4 83 6059 19	Squeeze Cast Gunners Hatch	170.0	154.0	16.0	APR 85	AUG 85
4 84 6059 03	M2 AND M3 FIGHTING VEHICLE SYSTEM	263.0	213.0	6.0	JAN 86	DEC 87
4 84 6059 06	Production Methods For Composite Turret Basket	263.0	213.0	6.0	JAN 86	DEC 87
1 62 6079	AGT-150C Engine -----Delinquent Status Report-----	1,660.0	1,324.0	294.0	MAR 05	JUN 06
1 82 6079 12	Laser Welder For Recuperator ID/JD -----Delinquent Status Report-----				DEC 85	DEC 85
4 83 6079	AGT-1500 Engine	1,536.0	1,342.0	92.0	UCT 85	MAY 86
4 83 6079 01	Monocrystal Alloy For High Pressure Turbine Blades	231.0	208.0	23.0		APR 86
4 83 6079 02	Rapidly Solidified Rate (RSR) Nickel-Base Superalloy	363.0	340.0	23.0		MAY 86
4 83 6079 03	Bi-Cast High Pressure Turbine Nozzle	498.0	475.0	23.0		MAR 86

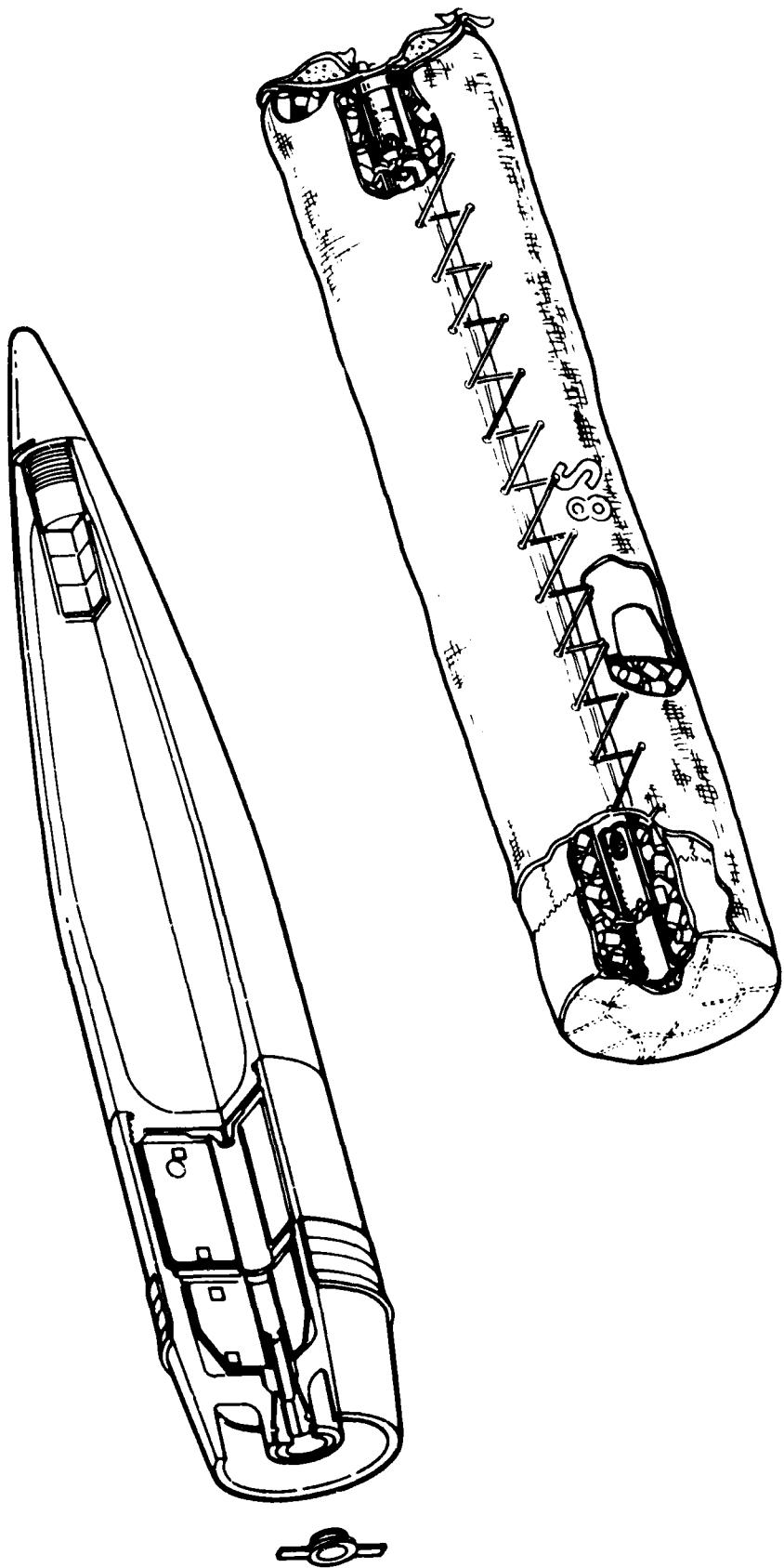
MANUFACTURING METHODS AND TECHNOLOGY PROGRAM  
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PROJ NO.	TITLE + STATUS		AUTH- KIZED	CONTRACT VALUES (\$000)	EXPENDED LABOR AND MATERIAL (\$000)	ORIGINAL PROJECTED AND COMPLETE DATE	PRESENT PROJECTED COMPLETE DATE	
				(\$000)	(\$000)			
4 83 6079 05	AUTOMATIC DEBURRING OF ENGINE COMPONENTS			442.0	419.0	23.0		JAN 86
4 85 6079	ACT-1500 ENGINE			1,273.0	1,223.0	50.0	MAR 86	JCT 87
4 85 6079 02	RAPID SOLIDIFICATION TECH (RST) NICKEL-BASE SUPERALLOY			33.0	30.0	3.0	DEC 86	APR 86
4 85 6079 05	AUTOMATED DEBURRING OF ENGINE COMPONENTS			335.0	310.0	25.0	JUL 86	OCT 86
4 85 6079 06	ADVANCED BALANCING MACHINING			626.0	615.0	11.0	MAR 86	JCT 87
4 85 6079 11	EROSION RESISTANT COATINGS FOR COMPRESSOR BLADES/VANES			271.0	260.0	11.0	SEP 85	FEB 87
4 86 6079	ACT-1500 ENGINE			875.0	850.0	12.0	JUL 88	JUL 88
4 86 6079 05	AUTOMATED DEBURRING OF ENGINE COMPONENTS- PHASE II			143.0	136.0	4.0	OCT 86	JCT 86
4 86 6079 06	ADVANCING BALANCING MACHINING -----JUST FUNDED. NO 301 REQUIRED-----							
4 86 6079 11	EROSION RES COATINGS F/COMPRESSOR BLADES/VANES			311.0	303.0	4.0	JAN 88	JAN 88
4 86 6079 12	LASER HEATING FOR RECUPERATOR ID/OU -----JUST FUNDED. NO 301 REQUIRED-----							
4 86 6079 22	NET-SHAPE CAST COMBUSTOR LINERS FOR ACT-1500 ENGINE			385.0		4.0	JUL 88	JUL 88
T 82 6090	TEAD DEPUT ANALYSIS OF RESOURCES AND TECHNOLOGY (DART)			100.0		27.7	MAY 83	SEP 86
4 84 6090	TEAD DEPUT ANALYSIS OF RESOURCES AND TECHNOLOGY (DART)			2,061.0	1,461.1	487.3	SEP 85	NAK 86
4 85 6090	TEAD DEPUT ANALYSIS OF RESOURCES AND TECHNOLOGY (DART)			250.0			MAY 86	MAR 86
4 86 6090	TEAD DEPUT ANALYSIS OF RESOURCES AND TECHNOLOGY (DART)			1,500.0			JAN 88	JAN 86
4 83 6095	ABRAMS TRANSMISSION PRODUCTIVITY IMPROVEMENTS (PHASE 1) -----DELINQUENT STATUS REPORT-----			304.0	286.0		DEC 84	JAN 86
4 83 6095 03	SURFACE TREATMENT AND CAST HARDENING OF STEEL COMPONENTS -----DELINQUENT STATUS REPORT-----						SEP 84	JAN 86
4 83 6095 05	SKIVE HOBBLING -----DELINQUENT STATUS REPORT-----						JAN 86	
4 85 6095	ABRAMS TRANSMISSION PRODUCTIVITY IMPROVEMENTS PHASE 111 -----DELINQUENT STATUS REPORT-----			95.0	70.0	13.0	JAN 86	JAN 86

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PPU NO.      TITLE + STATUS

PPU NO.	TITLE + STATUS	AUTH- RIZED	CONTRACT VALUES (\$000)	EXPENDED LABOR AND MATERIAL (\$000)	PRESENT PROJECTED	
					COMPLETE DATE	COMPLETE DATE
4 85 6195 C5	SKIVE HOBING OF GEARS -----DELINQUENT STATUS REPORT-----		6,550.0	6,515.0	JUL 84	MAR 86
4 85 6194	MANUFACTURING METHODS FOR SPECIALIZED ARMOR MATERIALS	842.0	705.0	100.0	AUG 84	MAY 86
4 85 6107	IMPROVED MBT TRACK	842.0	339.0	-----	JUN 84	MAY 86
4 83 6107 C1	CLMP AFC FRM HI STR/LTWEIGHT FERROUS, NON-FERR + MTL MATRIX	842.0	366.0	-----	AUG 84	MAY 86
4 83 6107 C2	ORGANIC COMPOSITE ROAD WHEEL	623.0	528.0	95.0	SEP 85	DEC 86
4 85 6107	IMPROVED MBT TRACK	623.0	160.0	-----	APR 86	DEC 86
4 85 6107 C1	TRACK PINS + SHOES MFG FROM ALUMINUM MATRIX COMPOSITE MTL	450.0	450.0	-----	APR 86	DEC 86
4 85 6107 C2	LCM COST ADAPTIVE FLUIDIC DAMPER MATERIALS	450.0	368.0	-----	APR 86	DEC 86
4 86 6107	IMPROVED MBT TRACK -----JUST FUNDED. NO 3Q1 REQUIRED-----	606.0	580.0	25.0	JAN 86	SEP 86
4 84 5124	CAI/CAM FOR THE BRADLEY FIGHTING VEHICLE	606.0	580.0	25.0	JAN 86	SEP 86
4 84 6124 J1	ROBOTIC WELDING	240.0	205.0	35.0	SEP 86	FEB 87
4 85 6124	CAI/CAM FOR THE BRADLEY FIGHTING VEHICLE -----DELINQUENT STATUS REPORT-----	260.0	236.0	5.0	FFB 87	FEB 87
4 85 6125	FIELD PROCESS PLANNING AND CONTROL -----DELINQUENT STATUS REPORT-----	275.0	275.0	-----	JUL 85	JUN 86
4 86 6125	FIELD PROCESS PLANNING AND CONTROL -----JUST FUNDED. NO 3Q1 REQUIRED-----	-----	-----	-----	-----	-----



**ARMAMENT, MUNITIONS AND CHEMICAL COMMAND  
(AMCCOM)  
(AMMUNITION)**

## AMERICAN COMMUNITIES

## CURRENT FUNDING STATUS, 2ND CY85

FISCAL YEAR	NO. OF PROJECTS	AUTHORIZED FUNDS (\$)	CONTRACT FUNDING		INHOUSE FUNDING REMAINING (\$)
			ALLOCATED (\$)	EXPENDED (\$)	
76	1	93,000	14,000	6,000 ( 42%)	79,000 ( 97%)
77	0	0	0	0 ( 0%)	0 ( 0%)
77	0	0	0	0 ( 0%)	0 ( 0%)
78	1	322,500	0	0 ( 0%)	322,500 ( 87%)
79	1	878,000	0	0 ( 0%)	878,000 ( 0%)
80	2	1,852,000	450,000 (100%)	450,000 (100%)	1,402,000 ( 7%)
81	7	5,693,400	2,165,300	1,939,600 ( 69%)	3,528,100 ( 45%)
82	18	21,975,600	14,942,900	14,884,000 ( 96%)	7,032,700 ( 84%)
83	9	5,710,000	3,729,300	3,599,200 ( 96%)	1,980,700 ( 83%)
84	35	20,907,000	14,700,200	11,654,400 ( 79%)	6,206,800 ( 78%)
85	45	26,074,000	23,190,000	4,945,300 ( 21%)	2,884,000 ( 83%)
86	30	7,557,000	2,253,100	6,000 ( 0%)	5,303,900 ( 0%)
TOTAL	149	91,062,500	61,444,800	37,864,500 ( 60%)	29,617,700 ( 57%)

AUTHORIZED FUNDING

CONTRACT ALLOCATED 67%

INHOUSE REMAINING 32%

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PROJ. NO. TITLE + STATUS

PROJ. NO.	TITLE + STATUS	AUTH- RIZED (\$000)	CONTRACT VALUES (\$000)	EXPENDED LABOUR AND MATERIAL (\$000)	ORIGINAL PROJECTED DATE	PRESENT COMPLETE DATE
					PROJECTED DATE	COMPLETE DATE
5 84 0904	CHEMICAL REMOTE SENSING SYSTEMS		2,112.0	1,977.0	135.0	NOV 86
5 85 0904	MFG TECH FOR CHEMICAL REMOTE SENSING SYSTEMS		1,441.0	1,350.0	56.2	JUL 86 APR 87
5 82 0905	MANUFACTURE OF IMPREGNATED CHARCOAL-WHETLERITE		282.0	103.0	179.0	DEC 84
5 84 0905	MANUFACTURE OF IMPREGNATED CHARCOAL (WHETLERITE)		456.0	400.0	56.0	MAR 86
5 85 0905	MANUFACTURE OF IMPREGNATED CHARCOAL		100.0	50.0	50.0	MAR 86
5 86 0905	MFG OF IMPREGNATED CHARCOAL (WHETLERITE)		186.0		15.0	MAR 86
5 84 0913	MODERNIZATION OF FILTER PENETRATION EQUIPMENT		300.0	200.0	80.0	SEP 85
5 85 0918	MODERNIZATION OF FILTER PENETRATION EQUIPMENT		50.0	41.0	9.0	DEC 86
5 86 0918	MODERNIZATION OF FILTER PENETRATION EQUIPMENT		157.0			DEC 87
5 85 0923	VELOCITY TRAVERSE MAPPER F/CHARCOAL FILTERS		200.0		74.0	JUN 87
5 86 0923	VELOCITY TRAVERSE MAPPER FOR CHARCOAL FILTERS		100.0			JUN 89 JUL 89
5 83 0924	MANUFACTURING PROCESS FOR GAS MASK CANISTERS		283.0	228.0	55.0	SEP 85
5 84 0924	MANUFACTURING PROCESS FOR GAS MASK CANISTERS		800.0	512.0	235.0	MAR 86
5 82 0925	PROTECTIVE MASK LEAKAGE TESTING		199.0		49.0	JUN 84
5 84 0925	PROTECTIVE MASK LEAKAGE TESTING		680.0	530.0	150.0	OCT 85
5 85 0925	PROTECTIVE MASK LEAKAGE TESTING		230.0	150.0	15.0	AUG 86
5 84 0926	MHT FOR XM22 CHEMICAL AGENT ALARM SYSTEM		700.0	456.0	194.0	UCT 87
5 85 0926	MFG TECH F/CHEMICAL AGENT ALARM, XM22		1,398.0	1,170.0	23.0	SEP 87
5 86 0926	MFG METHODS + TECH FOR XM22 CHEMICAL AGENT ALARM SYSTEM		2,112.0			FEB 88
5 95 0927	COMPUTER AIDED PROCESS PLANNING FOR CB FILTERS (CAM)		105.0		105.0	AUG 88 NOV 90
5 82 1295	MODERNIZATION OF CHARCOAL FILTER TEST EQUIPMENT		219.0	148.0	53.0	JUL 84 MAR 86
5 84 1295	MODERNIZATION OF CHARCOAL FILTER TEST EQUIPMENT		600.0	100.0	100.0	SEP 85 MAR 86

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5 65 1295	MODERNIZATION OF CHARCOAL FILTER TEST EQUIPMENT		1,285.0	3,450.0	100.0	MAR 86
5 86 1295	MODERNIZATION OF CHARCOAL FILTER TEST EQUIPMENT		845.0		SEP 86	SEP 86
5 84 1402	120MM COMBUSTIBLE CASE BODY REMOVAL SYSTEM		200.0	131.0	59.2	JUN 86
5 86 1402	120MM COMBUSTIBLE CASE BODY REMOVAL SYSTEM		235.0	190.1	MAR 87	MAR 87
5 81 1500	EVAL INDUST CAPABILITY F/LOAD COMMERCIAL EXPL-HIGH USE MUNIT -----DELINQUENT STATUS REPORT-----		543.0	294.0	248.0	SEP 82
5 82 1500	EVAL INDUST CAPABILITY F/LOAD COMMERCIAL EXPL-HIGH USE MUNIT -----DELINQUENT STATUS REPORT-----		450.0		302.0	OCT 83
5 82 1600	THREE PIECE SHAFT FOR THE SUU-65/B TAILCONE -----DELINQUENT STATUS REPORT-----		250.0			JUN 86
5 83 1701	BULK TRANSFER OF CHEMICAL MATERIALS -----DELINQUENT STATUS REPORT-----		207.0	73.2	87.6	SEP 85
5 82 1709	IMPROVED PROCESSING OF PYROTECHNIC MIXTURES -----DELINQUENT STATUS REPORT-----		500.0	93.1	370.8	JUL 84
5 83 1709	IMPROVED PROCESSING OF PYROTECHNIC MIXTURES -----DELINQUENT STATUS REPORT-----		446.0	274.7	100.9	JUL 84
5 85 1725	ELECTRICAL SENSITIVITY OF INITIATING EXPLOSIVES -----DELINQUENT STATUS REPORT-----					JUN 86
5 84 1802	AUTOMATED OPTICAL MICROELECTRONICS INSPECTION		496.0	425.0	71.0	JUN 87
5 85 1802	AUTOMATED OPTICAL MICROELECTRONICS INSPECTION		556.0	74.2	1.0	MAR 87
5 84 1803	IMPROVED LEAD DIOXIDE ELECTROPLATING TECHNOLOGY		346.0	271.0	13.0	MAR 86
5 85 1805	IMPROVED PRODUCTION VIBRATION TESTS-M732 (PIP) FUZE		200.0	157.8	30.0	DEC 86
5 86 1805	IMPROVED PROD VIBRATION TESTS - H732 PIP FUZE + COMPONENT -----DELINQUENT STATUS REPORT-----		300.0		DEC 87	DEC 87
5 84 1914	PRCESS ENGINEERING FOR EAK EXPLOSIVES -----DELINQUENT STATUS REPORT-----		450.0		369.9	SEP 85
5 81 4000	AUTOMATED MSS DICTATOR PRODUCTION EQUIPMENT		404.0	11.3	378.5	SEP 81
5 82 4062	AUTO MANUFACTURE SYSTEM FOR MORTAR INCREMENT CUNTAIERS		4,744.0	4,007.9	724.8	SEP 84

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						LABOR AND MATERIAL (\$000)
5 82 4062 01	SLURRY VACUUM FORMING MFG SYS					SEP 83 DEC 85
5 82 4062 02	PAPER MOLCING MANUFACTURING SYSTEM					JUL 84 MAR 86
5 82 4062 03	ASSEMBLY SYSTEM					SEP 83 MAR 86
5 84 4078	UPGRADE SAFETY, READINESS + PROD OF EXISTING MELT POUR LINES	621.0	488.0	131.0	SEP 85	JUN 86
5 82 4145	CONTROL DRYING AUTO SB + BALL PROPELLANT MANUFACTURING	479.2	260.1	202.0	SEP 83	MAR 87
5 82 4145 01	CONTROL DRYING AUTO SB PROP MFG	336.0	218.7	100.6	SEP 83	MAR 87
5 82 4161	PRODUCTION TECHNIQUES FOR IMPROVED SMOKE MUNITION (81 MM) -----DELINQUENT STATUS REPORT-----	516.0	97.5	380.0	JUL 83	JUN 86
5 84 4200	TNT CRYSTALLIZER FOR LARGE CALIBER MUNITIONS	570.0	339.7	230.3	JUN 85	JUN 86
5 85 4200	TNT CRYSTALLIZER F/LARGE CALIBER MUNITIONS	235.0		79.9	DEC 85	DEC 86
5 85 4273	AUTOMATED PRODUCTION OF STICK PROPELLANT	698.0	558.2	107.6	MAR 87	MAY 87
5 86 4273	AUTOMATED PRODUCTION OF STICK PROPELLANT	300.0			MAY 87	MAY 87
5 31 4281	CONSERVATION OF ENERGY AT ARMY AMMUNITION PLANTS	1,325.4	632.7	675.3	SEP 84	FEB 87
5 81 4281 A04	ENERGY RECOVERY FRM WASTE HEAT	410.0	194.1	211.6		JUN 86
5 81 4281 A08	CAVITATIONAL REMOVAL OF EXPLOSIVES	376.0	269.6	91.9	JUN 83	MAR 86
5 82 4281 A01	CONSERVATION OF ENERGY AT ARMY AMMUNITION PLANTS	1,362.0	773.2	810.0	SEP 84	FEB 87
5 82 4281 A01	PROCESS ENERGY INVENTORY	193.0	136.3	55.6	JUN 84	JEC 85
5 82 4281 A04	ENERGY RECOVERY FRM WASTE HEAT	419.0	262.0	134.1	SEP 84	MAY 86
5 82 4281 A12	POWER PRODUCTION FRM WASTE HEAT	427.0	355.0	70.0	JUN 84	MAR 86
5 84 4281 A02	CONSERVATION OF ENERGY AT ARMY AMMUNITION PLANTS	180.0	120.0	40.9	MAR 85	FEB 87
5 85 4281 A02	OPTIMIZED INSULATION	95.0	62.0	16.2	SEP 85	FEB 87
5 85 4281 A02	CONSERVATION OF ENERGY AT ARMY AMMUNITION PLANTS	95.0	62.0	16.2	DEC 86	JUL 86

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PROJ NO.	TITLE • STATUS	AUTHORIZED VALUES (\$000)	CONTRACT VALUES (\$000)	EXPENDED ORIGINAL LABOR PROJECTED AND COMPLETE MATERIAL DATE (\$000)			PRESENT COMPLETE DATE
				PROJECTED COMPLETE DATE	PROJECTED COMPLETE DATE	PROJECTED COMPLETE DATE	
5 76 4303	ACCEPTANCE OF CONTINUOUSLY PRODUCED BLACK POWDER -----DELINQUENT STATUS REPORT-----	93.0	14.0	77.0	APR 77	JUN 86	
5 82 4309	AMMUNITION FOR THE 120MM TANK MAIN ARMAMENT	3,942.4	3,271.7	665.8	SEP 84	SEP 86	
5 82 4309 04	COMBUSTIBLE CARTRIDGE CASE, 120MM	2,946.0	2,488.7	454.0		SEP 86	
5 82 4309 23	AUTOMATIC DEFLASHER EQUIPMENT FOR 120MM REAR SEAL	262.0	247.0	11.6	OCT 86	SEP 86	
5 81 4311	DEVELOP AUTOMATED PRODUCTION EQUIPMENT FOR XM 692	465.0	428.9	35.2	SEP 82	SEP 86	
5 82 4312	ANTI-ARMUR CLUSTER MUNITION PRODUCTION EXPLOSIVE INJECTION	546.0	351.4	194.7	JUN 83	DEC 86	
5 82 4344	ESTABLISH WASTE DISPOSAL TECHNIQUE FOR M687 BINARY PROJECT	580.0	180.0	252.0	NOV 83	SEP 86	
5 78 4349	MODERNIZATION OF PRESS LOADING FOR HEP PROJECTILES -----DELINQUENT STATUS REPORT-----	322.5		281.0	JUN 80	JUN 86	
5 80 4357	NONDESTRUCTIVE TEST EQUIP F/LARGE CALIBER MUNITIONS F/M483A1 -----DELINQUENT STATUS REPORT-----	554.0	450.0	104.0	JUN 83	FEB 86	
5 82 4357	NONDESTRUCTIVE TEST EQUIP F/LARGE CALIBER MUNITIONS F/M483A1 -----DELINQUENT STATUS REPORT-----	199.0	69.0	121.0	DEC 83	FEB 86	
5 84 4358	AUTO LINE PROCESS INSPECT OF NEW EEDS (ALPINE) -----DELINQUENT STATUS REPORT-----	356.0	250.0	25.0	JAN 87	JAN 87	
5 85 4358	AUTO LINE PROCESS INSPECT OF NEW EED (ALPINE) -----DELINQUENT STATUS REPORT-----	503.0	473.0	10.0	JAN 87	JAN 87	
5 86 4358	AUTO LINE PROCESS INSPECT OF NEW EEDS (ALPINE) -----JUST FUNDED. NO 301 REQUIRED.-----						
5 82 4364	CN-LINE 10 SENSORS TO MONITOR MIXED WASTE STREAMS -----DELINQUENT STATUS REPORT-----	324.0	261.0	63.0	SEP 83	JUN 86	
5 85 4406	IMPROVING THE YIELD OF HMX DURING RDX NITROLYSIS -----JUST FUNDED. NO 301 REQUIRED.-----	1,393.0	1,281.0	45.0	MAR 86	DEC 86	
5 86 4406	IMPROVING THE YIELD OF HMX DURING RDX NITROLYSIS -----JUST FUNDED. NO 301 REQUIRED.-----						
5 86 4427	EVALUATE CN-LINE CHEMICAL ANALYZERS FOR NO PLANT	504.0	269.0		JUN 87	JUN 87	
5 83 4449	PROCESS IMPROVEMENT FOR LOMP C-4	563.0	365.5	197.7	MAR 85	MAR 85	

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM  
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 2ND SEMIANNUAL SUBMISSION CY 85 ACS-DRCN-301

PROJ NO.	TITLE + STATUS	AUTHO- RIZED	CONTRACT VALUES	EXPENDED ORIGINAL LABOR AND MATERIAL (\$000)	PRESENT PROJECTED COMPLETE DATE
5 85 4449	PROCESS IMPROVEMENT FOR COMP C-4 + PBX EXPLOSIVES		327.0	238.7	MAR 86 DEC 86
5 86 4449	PROCESS IMPROVEMENT FOR COMP C-4 EXPLOSIVES -----JUST FUNDED. NO 301 REQUIRED.-----				
5 79 4454	AUTO INSPECTION DEVICE EXPLOD CHARGE SHELL (AIDEC) CAN -----DELINQUENT STATUS REPORT-----	878.0			DEC 81 JUN 86
5 80 4454	AUTO INSPECTION DEVICE EXPLOD CHARGE SHELL (AIDEC) CAN -----DELINQUENT STATUS REPORT-----		1,298.0		APR 82 JUN 86
5 80 4454 01	AUTOMATIC INSPECTION DEVICE FOR EXPLOSIVE CHARGE IN SHELL (A -----DELINQUENT STATUS REPORT-----				APR 82 DEC 85
5 80 4454 02	AUTOMATIC X-RAY INSPECTION SYSTEM (AXIS) -----DELINQUENT STATUS REPORT-----				AUG 80 DEC 85
5 81 4454	AUTO INSPECTION DEVICE EXPLOD CHARGE SHELL (AIDEC) CAN -----DELINQUENT STATUS REPORT-----		1,885.0		OCT 82 JUN 86
5 81 4454 01	AUTOMATIC INSPECTION DEVICE FOR EXPLOSIVE CHARGE IN SHELL -----DELINQUENT STATUS REPORT-----				MAY 82 DEC 85
5 81 4454 02	AUTOMATIC X-RAY INSPECTION SYSTEM (AXIS) -----DELINQUENT STATUS REPORT-----				OCT 82 DEC 85
5 82 4454	AUTO INSPECTION DEVICE EXPLOD CHARGE SHELL (AIDEC) CAN -----DELINQUENT STATUS REPORT-----				
5 82 4454 01	AUTO INSP DEVICE FOR EXPLOSIVE CHARGE IN SHELL (AIDEC)		5,883.0	4,915.0	941.0 JUL 83
5 82 4454 02	AUTO X-RAY INSPECTION SYSTEM (AXIS) -----DELINQUENT STATUS REPORT-----				JUL 83 JUL 85
5 84 4473	AUTOMATED LEAK DETECTION OF WP MUNITIONS		410.0	330.0	79.0 JUN 85
5 86 4473	AUTOMATED LEAK DETECTION OF WP MUNITIONS -----JUST FUNDED. NO 301 REQUIRED.-----				MAK 86
5 84 4489	ADVANCED POLLUTION ABATEMENT TECHNOLOGY F/DARCOM FACILITIES		906.0	612.0	294.0 JUN 85 JUN 86
5 84 4489 01	DISPUSAL OF WASTEWATER TREATMENT SLUDGES		461.0	329.5	131.0 JUN 85 MAY 86
5 84 4489 02	ADVANCED PINK WATER TREATMENT (TNT/RUX/HMX IN WATER)		445.0	282.0	163.0 JUN 85 MAY 86

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM  
 SUMMARY PROJECT STATUS REPORT  
 2ND SEMIANNUAL SUBMISSION CY 85 ACS DRMT-301

PROJ NO.      TITLE + STATUS

PROJ NO.	TITLE + STATUS	AUTH- RIZED	CONTRACT VALUES (\$000)	EXPENDED LABOR AND MATERIAL (\$000)	PRESENT	ORIGINAL	PROJECTED	COMPLETE	COMPLETE
					DATE	DATE	DATE	DATE	DATE
5 81 4503	NEW PROCESS FOR SAWs TRACER AMMUNITION		500.0	402.4	97.6	AUG 82	APR 86		
5 82 4503	NEW PROCESS FOR SAWs TRACER AMMUNITION		199.0		199.0	SEP 83	APR 86		
5 81 4506	5.56 MM CARTRIDGE LINKING SYSTEM		571.0	396.0	175.0	JAN 83	DEC 86		
5 82 4506	5.56MM CARTRIDGE LINKING SYSTEM		567.0	321.0	246.0	JAN 84	DEC 86		
5 84 4510	AUTO ASSY OF ADDITIVE LINER TO TANK CARTRIDGE CASE		295.0	225.0	62.8	SEP 85	SEP 86		
5 85 4510	AUTO ASSEMBLY OF ADDITIVE LINER TO TANK CARTRIDGE CASE		177.0	91.4	32.1	MAR 86	SEP 86		
5 85 4511	DISPENSAL OF FINAL SLUDGE FROM ACID RECOVERY OPERATIONS		375.0	275.0	13.5	DEC 85	SEP 86		
5 84 4523	RAPID MOISTURE ANALYSIS OF EXPLOSIVE MIXES		200.0	38.8	157.0	SEP 85	SEP 86		
5 84 4524	AUTOMATED MELT POUR EQUIPMENT FOR SMALL AP MINES		385.0	239.9	144.9	SEP 85	DEC 86		
5 82 4529	MANUFACTURE OF PRECISION CONES FOR HEAT PROJECTILES		533.0	156.0	151.0	SEP 82	FEB 87		
5 85 4531	AUTO PROD OF MULTI-BASE STICK PROPELLANT ON CABML		604.0	492.6	70.2	SEP 86	JUN 86		
5 86 4531	AUTOMATED PRODUCTION OF STICK PROPELLANT ON CABML -----JUST FUNDED. NO 301 REQUIRED.-----								
5 84 4534	M855 BULLET CONVERSION OF SCAMP EQUIPMENT		1,859.0	1,655.0	204.0	MAY 86	JUN 86		
5 83 4538	5.56 SAWs LINK ORIENTER AND FEED SYSTEM		495.0	390.0	405.0	MAR 85	JUN 86		
5 85 4539	AUTOMATED LA TRIDGE CASE HARDNESS MEAS + CONTROL		387.0	247.0	97.0	JUL 85	MAR 86		
5 84 4541	HIGH SPEED INSPECTION OF SAA PRIMED CASES		499.0	388.0	92.0	JUN 86	MAY 86		
5 84 4544	THIRD GENERATION DYNAGUN (GAMMA) TO SIMULATE TANK GUNS -----DELINQUENT STATUS REPORT-----		496.0	362.0	52.0	JUL 85	JUN 86		
5 85 4544	THIRD GENERATION DYNAGUN (GAMMA) TO SIMULATE TANK -----DELINQUENT STATUS REPORT-----		317.0	51.0	21.0	SEP 85	JUN 86		
5 85 4545	DIGITAL IMAGE AMPLIFICATION X-RAY SYSTEM (DIAx) -----DELINQUENT STATUS REPRT-----		180.0	141.0	34.0	SEP 85	AUG 86		
5 84 4547	PROCESS TECHNOLOGY FOR XM76 IR SCREENING GRENADE -----DELINQUENT STATUS REPRT-----		301.0	200.0	101.0	FEB 85	JUN 86		

**MANUFACTURING METHODS AND TECHNOLOGY PROGRAM  
SUMMARY PROGRESS STATUS REPORT  
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PROJ. NO.	TITLE + STATUS	AUTH- RIZED (\$000)	CONTRACT VALUES (\$000)	EXPENDED		ORIGINAL LABOR AND MATERIAL (\$000)	PRESENT PROJECTED COMPLETE DATE
				LABOR AND MATERIAL (\$000)	PROJECTED COMPLETE DATE		
5 84 4548	PYRO SAFETY ENHANCEMENT	472.0	315.0	128.0	MAR 86	JUN 86	
5 84 4548 02	TRANSPORT AND CONVEYING SAFETY ENHANCEMENT	245.0			MAR 86	MAR 86	
5 84 4548 04	EAY DESIGN SAFETY ENHANCEMENT	103.0			MAR 86	SEP 86	
5 84 4548 05	OPERATORS CLOTHING SAFETY	125.0			MAR 86	SEP 86	
5 85 4548	PYRO SAFETY ENHANCEMENT	334.0	164.0	109.0	JUN 86	SEP 86	
5 84 4550	AUTOMATED ASSEMBLY OF M22 FLASH SIMULATOR	523.0	394.8	94.9	DEC 85	SEP 86	
5 82 4551	MANUFACTURING PROCESS PARAMETER FOR XM855/856 AMMO ----DELINQUENT STATUS REPORT----	619.0	83.0	335.0	MAR 83	MAY 87	
5 84 4556	ON-LINE MONITORS F/WATER POLLUTANTS GENERATED BY MFR OF EXPL	330.0	233.0	97.0	SEP 85	DEC 85	
5 83 4563	PROCESS IMPROVEMENT FOR TANK DU PENETRATORS	2,728.0	1,798.0	897.0	JUN 85	DEC 86	
5 83 4563 06	RECYCLING OF STABALLY MACHINING CHIPS	785.0	696.8	82.7	JUL 85	SEP 86	
5 83 4563 07	FORMING TO NEAK NET SHAPE	369.9	323.4	41.3	JUN 85	DEC 86	
5 83 4563 08	NON-DESTRUCTIVE TESTING OF A PREFORMED SHAPE	228.0		204.5	SEP 85	SEP 86	
5 63 4563 11	PROCESS IMPROVE FOR DU PENETRATORS-MG F2 LINERS	317.6	276.1	41.5	JUL 85	DEC 85	
5 94 4563	PROCESS IMPROVEMENT FOR TANK DU PENETRATORS	2,350.0	1,394.0	886.0	MAR 86	DEC 86	
5 84 4563 C5	REDUCTION OF CHIP OXIDATION	656.3	548.7	87.5	MAR 86	SEP 86	
5 84 4563 13	ELIMINATE/REDUCE NITRIC ACID PICKLING	283.0	240.5	26.3	SEP 85	SEP 86	
5 84 4563 14	EVALUATE MOLD COATINGS	295.2	252.9	42.3	SEP 85	DEC 85	
5 84 4563 17	NEUTRON MEASUREMENT OF RESIDUAL STRESSES	125.0		68.5	NOV 85	SEP 86	
5 84 4563 18	FILTRATION OF MOLTEN URANIUM	433.0	351.6	65.3	DEC 85	DEC 86	
5 84 4563 22	MACHINING LONG RUD DU PENETRATORS	558.3		558.3	DEC 85	JAN 86	
5 84 4570	IMPR MFS PRO TES PROC F/XM762 ARTY ELECT TIME FUZE ----DELINQUENT STATUS REPORT----	387.0	304.0	71.1	SEP 85	JEC 86	
5 85 4570	IMPROVE MFG PROCESSES + TEST PROC F/ARTIL ELECT TIME FUZES ----DELINQUENT STATUS REPRT----	976.0	699.9	15.7	SEP 86	DEC 86	

MANUFACTURING METHODS AND TECHNOLOGY PULLDOWN  
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 2ND SEMIANNUAL SUBMISSION CY 85 RCS DRCHI-301

PROJ NO.	TITLE + STATUS	AUTHO- RIZED VALUES (\$000)	CONTRACT VALUES (\$000)	EXPENDED LABOR AND MATERIAL (\$000)	ORIGINAL PROJECTED COMPLETE DATE	PRESENT COMPLETE DATE
5 86 4570	IMPR MFG PRO TES PROC FOR ARTY ELEC TIME FUZES ----JUST FUNDED. NO 301 REQUIRED.					
5 85 4574	IMPROVED PROCESS FOR RDX/HMX FINES MANUFACTURE ----DELINQUENT STATUS REPORT					
5 85 4578	MOD + IMP OF THE DMSU PILOT PROCESS FOR RDX/HMX	159.0	110.9	11.0	MAR 06	FEB 86
5 86 4578	MOD + IMPROVEMENT OF DMSU PILOT PROCESS FOR RDX/HMX ----JUST FUNDED. NO 301 REQUIRED.					
5 85 4584	LOADING EQUIPMENT FOR CAL .50 AMMUNITION	650.0	482.0	99.0	DEC 05	APR 86
5 86 4597	MFG PROCESSES FOR CANNON CALIBER 105 PENETRATOR ----JUST FUNDED. NO 301 REQUIRED.					
5 83 4605	PROPELLANT BED DEPTH CONTROL IN CASBL A&K DRY	570.0	451.9	109.5	JUL 84	SEP 86
5 84 4606	AUTOMATED ASSEMBLY OF BLU 97/B COMBINED EFFECTS MUNITION	1,556.0	1,409.0	80.0	DEC 85	MAR 87
5 95 4612	NITRAMINE (LUVIA) PROPELLANT WASTEWATERS ABATEMENT	250.0	175.0	39.9	DEC 86	JUN 87
5 86 4612	NITRAMINE (LUVIA) PROPELLANT WASTEWATER ABATEMENT ----JUST FUNDED. NO 301 REQUIRED.					
5 85 4613	METHOD F/PROCESS ANALYSIS OF RDX/HMX SLURRY	319.0	212.0	15.0	MAR 06	JUN 86
5 85 4615	IMPROVED SOLVENTLESS PASTE BLENDING	380.0	282.0	61.5	SEP 86	JUN 86
5 86 4615	IMPROVED SOLVENTLESS PASTE BLENDING ----JUST FUNDED. NO 301 REQUIRED.					
5 85 4623	CALCIUM CYANAMIDE PROCESS CONTROL	263.0	209.6	30.0	DEC 05	SEP 86
5 85 4624	AUTOMATED MFG OF MILLIMETER WAVE DIODES (CAM)	2,084.0	2,585.0	214.0	SEP 86	OCT 86
5 85 4625	AUTO MFG OF SILICON IF AMPLIFIER IC (CAM)	284.0	259.0	23.0	JUN 86	DEC 86
5 86 4625	AUTO MANUFACTURE OF SILICON IF AMPLIFIER IC (CAM)	500.0	455.0		SEP 87	SEP 87
5 84 4626	AUTOMATED ASSEMBLY OF MILLIMETER WAVE TRANSDUCERS	180.0	162.0	18.0	DEC 84	SEP 86
5 85 4626	AUTO ASSEMBLY OF MILLIMETER WAVE TRANSDUCER	3,171.0	2,894.0	199.0	JUN 06	DEC 86
5 86 4626	AUTOMATED ASSEMBLY OF MMW TRANSDUCER	500.0			DEC 87	DEC 87

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM  
 SUMMARY PROJECT STATUS REPORT  
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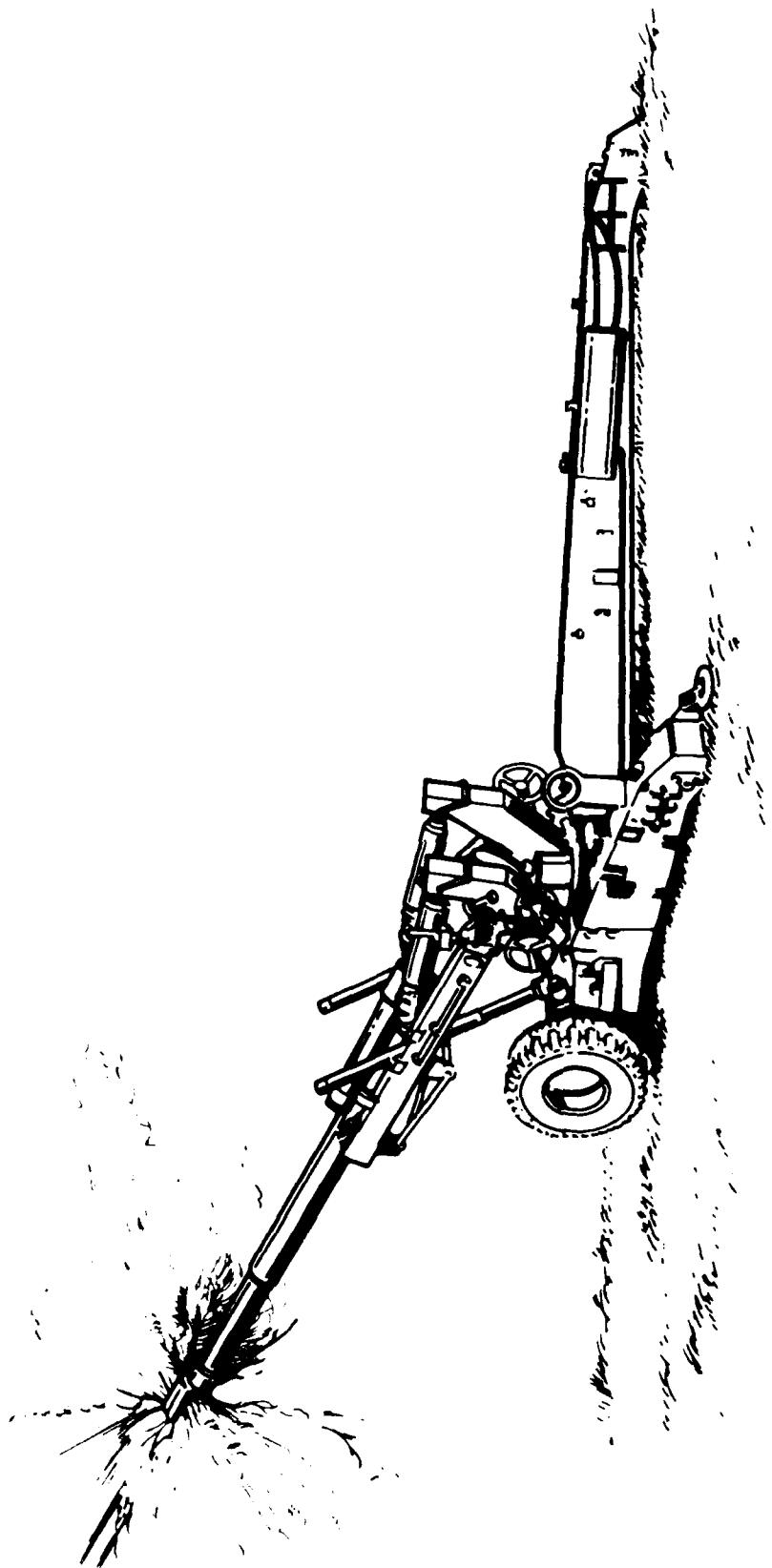
PRCJ NO.	TITLE • STATUS	AUTHO- RIZED VALUES (\$000)	CONTRACT VALUES (\$000)	EXPENDED ORIGINAL LABOR AND MATERIAL DATE (\$000)		PRESENT PROJECTED COMPLETE DATE
				EXPENDED LABOR AND MATERIAL DATE (\$000)	PROJECTED LABOR AND MATERIAL DATE (\$000)	
5 85 4627	AUTO TESTING OF MILLIMETER WAVE TRANSDUCER		1,943.0	1,767.0	129.0	SEP 86
5 86 4627	AUTOMATED TEST OF MMW TRANSDUCER		400.0	364.0		DEC 87
5 85 4633	AUTO SENSOR SYSTEMS TEST F/MMW + IR SNSOR		554.0	554.0		SEP 86
5 86 4633	AUTO SENSOR SYSTEMS TEST FOR MMW AND IR SENSORS		300.0	272.0		SEP 87
5 85 4637	AUTO MFG OF SFF WARHEAD LINERS		785.0	710.0	24.9	DEC 86
5 86 4637	AUTOMATED MANUFACTURE + INSPECTION OF SFF WARHEAD LINERS		800.0	703.0		SEP 87
5 85 4642	CAL .50 CARTRIDGE FEEDING		160.0	89.0	71.0	MAR 86
5 85 4643	AUTO LINKING OF CAL .50 AMMUNITION		514.0	513.0		DEC 86
5 85 4656	NITRAMINE PRUPELLANT PROCESSING		435.0	184.0	203.0	JUN 86
5 86 4656	NITRAMINE PRUPELLANT PROCESSING -----JUST FUNDED. NO 301 REQUIRED.-----		573.0	465.7	80.9	SEP 86
5 85 4660	AUTOMATED BLENDING OF STICK PRPELLANT -----JUST FUNDED. NO 301 REQUIRED.-----					SEP 86
5 86 4660	REMOVAL OF BARIUM FROM CUMP A-3, TYPE II WASTEWATER -----DELINQUENT STATUS REPORT-----		50.0		50.0	SEP 85
5 84 4664	MACHILLOGICAL INSPECTION OF AMMUNITION FOR THE SGT YORK		91.0			APR 85
5 84 4665	COMPUTER SIMULATION OF QUENCHING		400.0		375.0	SEP 86
5 86 4666	PRC SPIRAL WRAP TOOL F/155M XM203E2 COMB CASE BODIES -----JUST FUNDED. NO 301 REQUIRED.-----					DEC 86
5 84 4668	ELECTROSTATIC PRECIP IMPROVEMENTS (SMOG HOG)		350.0	338.0	7.0	SEP 85
5 86 4668	ELECTROSTATIC PRECIP IMPROVEMENTS (SMOG HOG)		250.0			DEC 88
5 85 4698	MULTI-FELTING + PRESSING OF COMBUSTIBLE CART CASE COMPONENTS		625.0	480.0	81.0	MAR 87
5 85 4763	MANUFACTURING PROCESS FOR AMMO -----SECRET. NO 301 REQUIRED.-----					SEP 86

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SUMMARY PROJECT STATUS REPORT  
2ND SEMIANNUAL SUBMISSION CY 85 RCS DRCMT-301

PROJ NO.	TITLE • STATUS	AUTHO- RIZED VALUES (\$000)	CONTRACT VALUES (\$000)	EXPENDED ORIGINAL LABOR AND MATERIAL (\$000)	PRESENT PROJECTED COMPLETE DATE (\$000)
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5 86 4763 MANUFACTURING PROCESS FOR AMMO  
-----JUST FUNDED. NO 301 REQUIRED.-----

5 85 4781 AUTOMATIC GAGE FOR THREAD INSPECTION  
-----DELINQUENT STATUS REPORT-----



**ARMAMENT, MUNITIONS AND CHEMICAL COMMAND  
(AMCCOM)  
(WEAPONS)**

## AMERICAN INDIAN PAPERS

## CURRENT FUNDING STATUS, 2ND CY85

FISCAL YEAR	NO. OF PROJECTS	AUTHORIZED FUNDS (\$)	CONTRACT ALLOCATED (\$)	CONTRACT FUNDING EXPENDED (\$)	INHOUSE FUNDING REMAINING (\$)	INHOUSE FUNDING EXPENDED (\$)
76	1	321,100	285,200	205,200 (100%)	45,900	45,900 (100%)
77	6	0	0	0 ( 0%)	0	0 ( 0%)
77	3	0	0	0 ( 0%)	0	0 ( 0%)
78	0	0	0	0 ( 0%)	0	0 ( 0%)
79	2	415,000	285,500	209,500 (100%)	125,500	124,600 ( 94%)
80	6	1,555,000	286,000	286,100 ( 99%)	1,268,700	1,220,900 ( 96%)
81	3	1,915,000	1,149,000	734,100 ( 63%)	765,200	516,600 ( 36%)
82	21	6,620,000	3,052,700	1,671,400 ( 54%)	3,567,300	2,230,900 ( 62%)
82	10	2,802,000	839,900	727,900 ( 86%)	1,962,100	931,600 ( 47%)
84	23	8,021,000	1,201,100	561,900 ( 46%)	6,819,900	1,487,900 ( 21%)
85	23	5,726,000	1,320,000	421,900 ( 41%)	5,706,200	1,041,400 ( 21%)
86	20	1,382,000	197,000	102,000 ( 50%)	1,185,000	0 ( 0%)
total	114	29,767,100	8,321,500	5,179,600 ( 61%)	21,445,600	12,062,600 ( 56%)

CONTRACT FUNDING

CONTRACT ALLOCATED 26%

INHOUSE REMAINING 74%

AD-A168 382

MANUFACTURING METHODS AND TECHNOLOGY PROJECT

2/2

EXECUTIVE REPORT(U) ARMY INDUSTRIAL BASE ENGINEERING

ACTIVITY ROCK ISLAND IL PRODUCTION ENGINEERING DIV

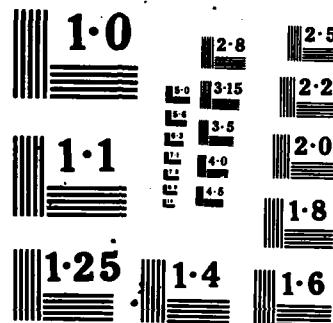
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**MANUFACTURING METHODS AND TECHNOLOGY PROGRAM**  
**S U M M A R Y P R O J E C T S T A T U S R E P O R T**  
**2ND SEMIANNUAL SUBMISSION CY 85 ACS DRCHI-301**

PRCJ. NO.	TITLE + STATUS	AUTHO- RIZED		CONTRACT VALUES		EXPENDED LABOR AND MATERIAL VALUES		ORIGINAL PROJECTED AND COMPLETE DATE		PRESENT DATE
		(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	
6 76 7580	PILOT AUTOMATED SHOP LOADING AND CONTROL SYSTEM- CAM ----DELINGUENT STATUS REPORT----	331.1	285.2	45.9	SEP 78	45.9	SEP 78	45.9	SEP 78	JUN 86
6 79 7605	CHEMICALLY BONDED SAND FOR CLOSE TOLERANCE CASTING	127.0	22.0	104.9	MAR 80	104.9	MAR 80	104.9	MAR 80	JUN 86
6 80 7605	CHEMICALLY BONDED SAND FOR CLOSE TOLERANCE CASTING	253.0		252.7	FEB 82	252.7	FEB 82	252.7	FEB 82	JUN 86
6 82 7707	AUTOMATED PROCESS CONTROL FOR MACHINING	135.0	63.2	71.8	-SEP 83	71.8	-SEP 83	71.8	-SEP 83	APR 86
6 80 7730	MANUFACTURE OF SPLIT RING BREECH SEALS	363.0	94.2	260.8	DEC 82	260.8	DEC 82	260.8	DEC 82	SEP 86
6 82 7730	MANUFACTURE OF SPLIT RING BREECH SEALS	108.0		86.5	SEP 84	86.5	SEP 84	86.5	SEP 84	SEP 86
6 79 7802	ESTABLISH MACHINE TOOL PERFORMANCE SPECIFICATIONS	288.0	267.5	19.7	JUN 81	19.7	JUN 81	19.7	JUN 81	JUN 86
6 81 7807	PROGRAMMED OPTICAL SURFACING EQUIPMENT AND METHODOLOGY (CAM)	374.0	341.0	26.0	JUL 83	26.0	JUL 83	26.0	JUL 83	SEP 87
6 81 7928	ROBOTIZED BENCHING OPERATIONS (CAM)	287.0	251.2	35.8	SEP 83	35.8	SEP 83	35.8	SEP 83	JUL 86
6 80 7963	GROUP TECHNOLOGY FOR FIRE CONTROL PARTS AND ASSEMBLIES	429.0	21.8	396.1	DEC 81	396.1	DEC 81	396.1	DEC 81	SEP 86
6 83 7985	SMALL ARMS WEAPONS NEW PROCESS PRODUCTION TECHNOLOGY	530.0	348.0	160.0	OCT 84	160.0	OCT 84	160.0	OCT 84	JUN 86
6 83 7965 01	SMALL ARMS WEAPONS NEW PROCESS TECH-ROTARY FORGING			DCI 86	JUN 86	DCI 86	JUN 86	DCI 86	JUN 86	JUN 86
6 83 7985 05	RECYCLE OF GUN STEEL			JAN 85	JUN 86	JAN 85	JUN 86	JAN 85	JUN 86	JUN 86
6 83 7965 06	TRAVELING ELECTRODE ECM RIFLING									
6 84 7985	SMALL ARMS WEAPONS NEW PROCESS PRODUCTION TECHNOLOGY	718.0	348.0	128.0	OCT 85	128.0	OCT 85	128.0	OCT 85	JCT 87
6 84 7985 01	SMALL ARMS WEAPONS NEW PROCESS TECH-ROTARY FORGING									JCT 87
6 84 7985 04	RAPID FLOW PLATING OF GUN TUBES									JCT 87
6 84 7985 06	TRAVELING ELECTRODE ECM RIFLING									JCT 87
6 84 7965 07	STRAIGHTENING									JAN 85
6 84 7985 08	TRIBULOGY									JAN 85
6 85 7985	SMALL ARMS WEAPONS NEW PROCESS PRODUCTION TECHNOLOGY	890.0	514.0	12.0	OCT 87	12.0	OCT 87	12.0	OCT 87	JCT 87
6 85 7965 01	SMALL ARMS WEAPONS NEW PROCESS TECH-ROTARY FORGING									JCT 87

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM  
 SUM M A R Y P R O J E C T S R A T U S R E P O R T  
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PROJ NO.	TITLE + STATUS	AUTHO- RIZED VALUES (\$000)	CONTRACT VALUES (\$000)	EXPENDED LABOR AND MATERIAL (\$000)	PRESENT PROJECTED COMPLETE DATE	OCT 87	OCT 87
					OCT 87	OCT 87	OCT 87
6 85 7985 04	SMALL ARMS WEAPONS NEW TECH-RAPID FLOW PLATING					OCT 87	OCT 87
6 85 7985 06	TRAVELING ELECTRODE ECM RIFLING					OCT 87	OCT 87
6 85 7985 07	STRAIGHTENING					OCT 87	OCT 87
6 85 7985 08	TRIBULOGY					OCT 87	OCT 87
6 86 7985	SMALL ARMS WEAPONS NEW PROCESS PRODUCTION TECHNOLOGY	632.0	197.0			OCT 87	OCT 87
6 86 7985 01	SMALL ARMS WEAPONS NEW PROCESS TECH-ROTARY FORGING					JCT 87	JCT 87
6 86 7985 04	SMALL ARMS WEAPONS NEW TECH-RAPID FLOW PLATING					OCT 87	OCT 87
6 86 7985 06	TRAVELING ELECTRODE ECM RIFLING					OCT 87	OCT 87
6 86 7985 07	STRAIGHTENING					OCT 87	OCT 87
6 86 7985 08	TRIBULOGY					OCT 87	OCT 87
6 80 8017	POLLUTION ABATEMENT PROGRAM	86.0				86.0	JAN 81
6 82 8024	HIGH SPEED ABRASIVE BELT GRINDING					104.1	SEP 84
6 82 8030	MANUFACTURING GUIDE FOR ELASTOMERIC SEALS	142.0				105.3	MAY 83
6 81 8035	COATING TUBE SUPPORT SLEEVES WITH BEARING MATERIALS	123.0	16.9			181.3	JUN 82
6 80 8051	APPLICATION AND CONTROL OF MACHINE TOOLS (CAM)	200.0	18.7			165.6	SEP 82
6 80 8057	CUAL RIFLING BRACH REMOVAL SYSTEM	209.0	148.8			215.0	FEB 86
6 82 8102	POWDER METALLURGY FORGINGS WEAPONS COMPONENTS	110.0	74.3			110.0	SEP 84
6 83 8102	APPL OF POWDER METALLURGY FORGING TO WEAPON COMPONENTS	142.0				142.0	MAK 86
6 81 8105	ESTABLISH ROUGH THREAD BLANKS, 8 IN M201 BUSHING	292.0	204.9			292.0	SEP 85
6 81 8107	CREEP FEED / CRUSH FURN GRINDING					73.0	JUL 84
6 82 8108	PRODUCTION/IN-PROCESS INSPECTION OF OPTICAL BONDS					275.0	SEP 86
6 83 8120	ADAPTIVE CONTROL TECHNOLOGY (CAM)					532.0	JAN 87
6 82 8135	IN-PROCESS CONTROL OF MACHINING	841.0	595.7			841.0	SEP 87

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM  
 SUMMARY PROJECT STATUS REPORT  
 2ND SEMIANNUAL SUBMISSION CY 85 RCS DRCHT-301

PROJ NO.	TITLE • STATUS	AUTHO- RIZED	CONTRACT VALUES	EXPENDED MATERIAL (\$000)	ORIGINAL LABOR AND COMPLETE DATE	PRESENT PROJECTED COMPLETE DATE
					(\$000)	(\$000)
6 81 8136	IMPROVED IMPULSE PROGRAMMERS FOR HYDRAULIC SIMULATORS		80.0		80.0	SEP 83 JUN 86
6 82 8151	PORTABLE ENGRAVING SYSTEM	171.0	93.0		62.2	JAN 84 JUL 86
6 84 8153	INCREASING GUN TUBE HEAT TREATMENT CAPACITY	250.0	59.0		81.3	OCT 86 OCT 87
6 84 8154	COMPUTER INTEGRATED MANUFACTURING (CIM) FOR CANNONS	500.0	322.3	101.6	SEP 86	SEP 86
6 82 8165	STANDARDS FOR DIAMOND TURNED OPTICAL PARTS -----DELINQUENT STATUS REPORT-----	258.0	125.0	125.0	OCT 83	JUN 86
6 81 8209	PILOT PRODUCTION OF GRADIENT INDEX OPTICS	374.0	334.0	40.0	MAY 83	SEP 86
6 82 8231	IMPROVED CASTING TECHNOLOGY (CAD/CAM)	250.0		163.8	MAR 84	DEC 87
6 83 8231	IMPROVED CASTING TECHNOLOGY (CAD/CAM)	136.0		14.8	FEB 85	DEC 87
6 84 8231	IMPROVED CASTING TECHNOLOGY	122.0		7.7	MAR 86	DEC 87
6 82 8238	BORING BREECH RING LUGS	303.0	159.0	132.4	AUG 84	SEP 86
6 82 8241	COMPUTER DIAGNOSTICS AND CONTROL FOR BORE GUIDANCE	458.0	380.0	46.0	JUN 85	JUN 86
6 84 8241	COMPUTER DIAGNOSTICS • CONTROL APPL TO BORE GUIDANCE (CAM)	85.0		60.6	MAR 86	JUN 87
6 83 8243	COMPUTER CONTROL FOR ELECTRODEPOSITION SYSTEMS	260.0		258.0	SEP 84	AUG 86
6 93 8245	APPLICATION OF EROSION RESIS LOW CONTRACTURE CHRCMIUM PLATE	195.0		146.0	SEP 84	SEP 86
6 82 8248	APPLICATION OF HIGH-RATE CUTTING TOOLS	102.0		101.9	JUN 83	JUL 86
6 84 8249	SHORT-CYCLE HEAT TREATMENT OF WEAPUN COMPONENTS	132.0		59.0	JUN 85	AUG 86
6 85 8249	SHORT-CYCLE HEAT TREATMENT OF WEAPUN COMPONENTS	165.0		24.0	MAR 86	DEC 86
6 84 8250	IMPROVED FABRICATION OF KECOIL WEAR SURFACES	28.0	4.5	22.9	DEC 84	MAR 86
6 85 8250	IMPROVED FABRICATION OF KECOIL WEAR SURFACES	109.0		15.7	JUN 86	FEB 87
6 82 8251	IMPROVED MELTING PRACTICES	193.0	49.0	120.3	JUN 83	SEP 86
6 83 8251	IMPROVED MELTING PRACTICES	164.0		74.7	FEB 85	SEP 86
6 82 8252	INDUCTION HEATING OF A VARYING DIAMETER PREFCRN	301.0	170.0	123.7	MAR 84	DEC 86

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM  
 SUMMARY PROJECT STATUS REPORT  
 2ND SEMIANNUAL SUBMISSION CY 85 RCS URCY-301

PROJ NO.	TITLE + STATUS	AUTH- RIZED	CONTRACT VALUES	EXPENDED MATERIAL (\$000)	ORIGINAL AND COMPLETE DATE	PROJECTED COMPLETE DATE	PRESENT COMPLETE DATE
6 82 8253	MACHINE TOOL DYNAMIC MEASUREMENTS AND DIAGNOSTICS		310.0	190.0	93.6	APR 84	MAY 86
6 82 8259	IMPROVED MANUFACTURING PROCESS FOR FIRE CONTROL REGISTERS		261.0		173.5	SEP 84	DEC 86
6 82 8262	PRODUCTION METHODS FOR OPTICAL WAVEGUIDES		480.0	336.0	144.0	JAN 83	JUL 86
6 84 8262	PRODUCTION METHODS FOR OPTICAL WAVEGUIDES		155.0		155.0	APR 85	JUL 86
6 85 8262	PRODUCTION METHODS FOR OPTICAL WAVEGUIDES		597.0		8.0	DEC 85	DEC 86
6 81 8305	INTEGRATED MANUFACTURING SYSTEM (IMS) - (CAM)		235.0		120.0	JUL 82	DEC 86
6 82 8305	INTEGRATED MANUFACTURING SYSTEM (IMS) - (CAM)		204.0		30.8	SEPT 86	DEC 86
6 83 2305	INTEGRATED MANUFACTURING SYSTEM (IMS) - (CAM)		75.0		75.0	UCT 34	DEC 86
6 84 8305	INTEGRATED MANUFACTURING SYSTEM (IMS) (CAM)		2,488.0		22.2	SEP 85	DEC 86
6 85 8325	INTEGRATED MANUFACTURING SYSTEM - IMS		950.0			JUN 86	DEC 86
6 86 6305	INTEGRATED MANUFACTURING SYSTEM (IMS)-(CAM) -----JUST FUNDED. NO 301 REQUIRED-----						
6 83 8306	ON-LINE PRODUCTION INFORMATION SYSTEM - RIA (CAM)		200.0	158.3	2.7	SEP 84	JUL 86
6 84 6306	ON-LINE PRODUCTION INFORMATION SYSTEM - RIA (CAM)		571.0		25.0	OCT 85	MAR 87
6 84 8323	SPRAY-AND-FUZE PROCESSING OF ARMAMENT COMPONENTS		200.0	103.3	96.5	APR 85	MAR 86
6 85 8323	SPRAY-AND-FUZE PROCESSING OF ARMAMENT COMPONENTS		48.0		40.0	DEC 85	JUL 86
6 85 8324	PROCESS CONTROLS FOR P/M WEAPON COMPONENTS		300.0		62.2	SEP 85	SEP 86
6 86 8324	PROCESS CONTROLS FOR P/M WEAPON COMPONENTS -----JUST FUNDED. NO 301 REQUIRED-----						
6 85 8329	IPI - FIRE CONTROL OPTICAL DEVICES NEW PROCESS PROD TECH		275.0	200.0	20.0	DEC 85	MAY 86
6 86 8329	FIRE CONTROL OPTICAL DEVICES NEW PKULESS PROD TECH		500.0			OCT 86	JCT 86
6 92 8341	HOLLOW CYLINDER CUT OFF MACHINE		1,335.0	689.1	23.9	SEP 84	APR 87
6 86 8352	SKIVING (METAL SHAVING) OF GUN TUBE BORES -----JUST FUNDED. NO 301 REQUIRED-----						

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM  
 SUMMARY PROJECT STATUS REPORT  
 2ND SEMIANNUAL SUBMISSION CY 85 RCS DRAFT-301

PROJ NO.	TITLE + STATUS	AUTHO- RIZED (\$000)	CONTRACT VALUES (\$000)	EXPENDED LABOR AND MATERIAL (\$000)	ORIGINAL PROJECTED COMPLETE DATE	PRES- ENT DATE
6 83 8354	CUTTING OF HOT ROTARY FORCE TUBES	568.0	333.6	57.1	SEP 85	APR 87
6 84 8370	AUTO INSP AND PROC CONTROL OF WPNS PARTS MFG	300.0	221.0	79.0	SEP 86	MAR 86
6 85 8370	AUTO INSP + PROCESS CONTROL OF WPNS PARTS MFG (CAM)	225.0	145.0	42.0	SEP 86	JUN 86
6 86 8370	AUTO INSPECTION + PROC CNT OF WEAPONS PARTS MFG	250.0			DEC 86	DEC 86
6 86 8403	DESIGN CRITERIA FOR HARDENING -----JUST FUNDED. NO 301 REQUIRED.-----					
6 84 8416	FLEXIBLE MFG SYSTEMS W/SPECIAL TOOLING	288.0			S1.1 OCT 85	OCT 86
6 84 8416 01	FLEXIBLE MACHINING SYSTEM	260.0			23.2 OCT 85	OCT 86
6 85 8416	FLEXIBLE MFG SYSTEM W/SPECIAL TOOLING - RIA	178.0	65.0		63.7 MAR 86	JUN 87
6 85 8416 02	FLEXIBLE MFG SYS W/SPECIAL TOOLING - RIA (CAM)	178.0	65.0		63.7 MAR 86	JUN 87
6 86 8416	FLEXIBLE MFG SYSTEM W/SPECIAL TOOLING - RIA -----JUST FUNDED. NO 301 REQUIRED.-----					
6 84 8426	APPLICATION OF LASERS TO CANNON MANUFACTURE	622.0	83.0	82.3	SEP 86	SEP 86
6 84 8430	AUTOMATED WELDING OF ROTARY FORCE HAMMERS	137.0	33.9	46.3	SEP 86	JUL 86
6 84 8431	AUTOMATED WELDING OF BORE EVACUATORS	215.0		48.7	SEP 86	SEP 86
6 84 8433	IN PROCESS CONTROL OF SELAS HEAT TREAT SYSTEM (CAM)	125.0	1.8	37.5	JUN 86	MAR 87
6 84 8434	EDDY CURRENT INSPECTION OF GUN TUBES	118.0	9.2	29.1	JUL 85	DEC 86
6 84 8436	LAUNCH CYCLE PROFILE MEASUREMENT SYSTEM	148.0		31.1	SEP 85	SEP 86
6 85 8436	QUENCH CYCLE PROFILE MEASUREMENT SYSTEM	147.0		64.1	JUL 86	JUL 87
6 84 8437	DENSIFICATION OF WEAPON CASTINGS (HIP)	108.0	15.1	20.8	SEP 86	DEC 86
6 86 8427	DENSIFICATION OF WEAPON CASTINGS (HIP) -----JUST FUNDED. NO 301 REQUIRED.-----					
6 84 8439	IMPROVED RIFLING PROCEDURES		80.0		56.8 SEP 85	SEP 86
6 82 8448	RAIDED PROCESS FOR BORE EVACUATOR	260.0	111.5	148.0	SEP 84	JUN 86

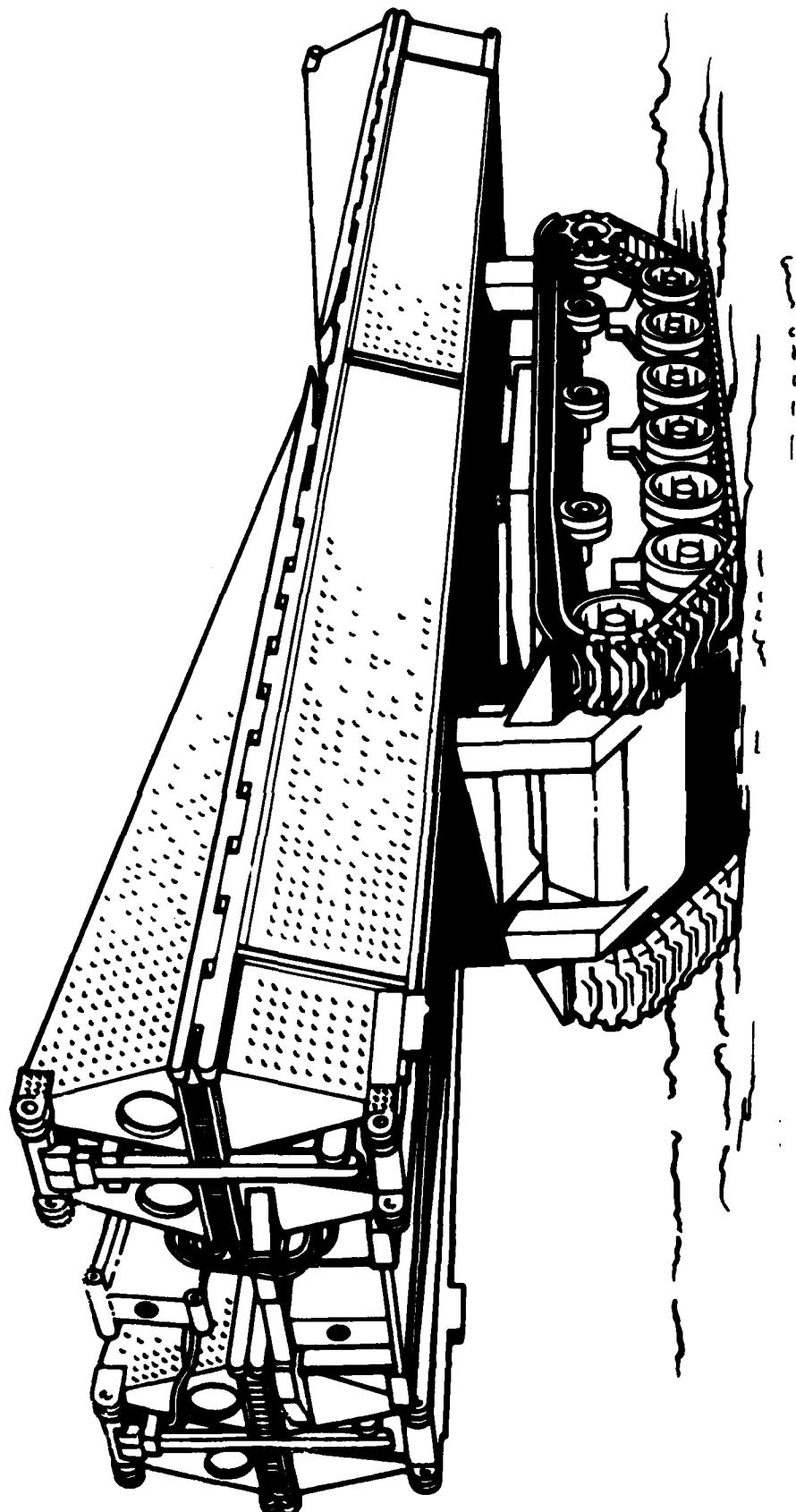
MANUFACTURING METHODS AND TECHNOLOGY PROGRAM  
 SUMMARY PERIOD STATUS REPORT  
 2ND SEMIANNUAL SUBMISSION CY 85 ACS DRAFT-301

PROJ NO. TITLE + STATUS

PROJ NO.	TITLE + STATUS	AUTHO- RIZED (\$000)	CONTRACT LABOR VALUES (\$000)	EXPENDED LABOR VALUES (\$000)	ORIGINAL PROJECTED COMPLETION DATE	PRESENT PROJECTED COMPLETION DATE
			-----	-----	-----	-----
6 85 8449	OPTIMAL RIFLING CONFIGURATION FOR CR PLATING	140.0	-----	17.3	SEP 86	SEP 86
6 84 8473	APPL FUSED SALT PROCESS TO COAT TANTALUM ON L CAL LINERS	242.0	-----	97.6	SEP 85	OCT 87
6 85 8473	APPL FUSED SALT PROCESS	250.0	-----	104.4	SEP 86	OCT 87
6 84 8474	APPL OF PARTIAL REFRACTORY LINERS TO CANNON TUBES	389.0	-----	147.0	SEP 86	SEP 87
6 85 8474	APPL OF REFRACTORY LINERS TO CANNON TUBES	290.0	-----	70.2	SEP 86	SEP 87
6 85 8510	AUTOMATED INSPECTION OF RECOIL COMPONENTS (CAM) -----JUST FUNDED. NO 301 REQUIRED.	200.0	-----	-----	-----	-----
6 85 8511	CASTING OF ANTIFRITION METAL COMPONENTS	-----	-----	12.1	SEP 86	FEB 87
6 86 8511	DIE CASTING OF ANTIFRICITION METAL COMPONENTS -----JUST FUNDED. NO 301 REQUIRED.	-----	-----	-----	-----	-----
6 86 8518	THIN FILM COATINGS FOR LASER EYE PROTECTION -----JUST FUNDED. NO 301 REQUIRED.	-----	-----	-----	-----	-----
6 85 8544	IRE E.D.M. MACHINING OF RIFLING BROACHES	70.0	1.8	57.1	JAN 86	APR 86
6 85 8546	MACHINERY CONDITIONS SURVEILLANCE SYSTEM	253.0	-----	29.5	SEP 87	MAR 89
6 86 8546	MACHINERY CONDITIONS SURVEILLANCE SYSTEM -----JUST FUNDED. NO 301 REQUIRED.	-----	-----	-----	-----	-----
6 86 8553	APPLICATION OF REFRACTORY + OTHER COAT BY THE SPUTT TECH -----JUST FUNDED. NO 301 REQUIRED.	-----	-----	-----	-----	-----
6 85 8559	CIM FOR CANNON CAD/CAM/CMM	1,010.0	42.2	690.2	JAN 86	SEP 89
6 86 8559	CIM FOR CANNON, CAE/CAM/COMM -----JUST FUNDED. NO 301 REQUIRED.	-----	-----	-----	-----	-----
6 85 8573	GENERIC GUN GYMNASTICATOR -----DELINQUENT STATUS REPORT-----	105.0	-----	42.0	SEP 88	SEP 88
6 85 8603	ROBOTIC WELDING - RIA	165.0	-----	27.9	JUL 86	FEB 87
6 86 8603	ROBOTIC WELDING -----JUST FUNDED. NO 301 REQUIRED.	-----	-----	-----	-----	-----
6 95 3606	APPLICATION OF FLUIDIZED BED HEAT TREATMENT	74.0	35.9	JUN 86	JEC 86	-----

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM  
SUMMARY PROGRESS REPORT  
2ND SEMIANNUAL SUBMISSION CY 85 RCS DRCHT-301

PROJ NO.	TITLE + STATUS	PRESENT AUTHORIZED				PROJECTED VALUES			
		CONTRACT (\$000)	EXPENDED LABOR (\$000)	ORIGINAL AND COMPLETE DATE	PROJECTED MATERIAL DATE (\$000)	PROJECTED COMPLETE DATE			
6 85 8625	MANUFACTURE OF MULTI-LUG BREECH MECHANISMS -----JUST FUNDED. NO 301 REQUIRED.-----	80.0	-	-	-	58.7	JAN 86	APR 86	
6 86 8625	MANUFACTURING OF MULTI-LUG BREECH MECHANISMS -----JUST FUNDED. NO 301 REQUIRED.-----								
6 85 8633	A THREE DIMENSIONAL NON-CONTACT MEASURING SYSTEM -----JUST FUNDED. NO 301 REQUIRED.-----	125.0	52.0	23.6	DEC 86	DEC 86			
6 86 8638	CONTROL OF SEQUENTIAL MACHINING OPERATIONS (CAHM) -----JUST FUNDED. NO 301 REQUIRED.-----								
6 86 8641	MFG OF TITANIUM ALLOY METAL MATRIX CANNON COMPONENTS -----JUST FUNDED. NO 301 REQUIRED.-----								
6 86 8642	APPLICATION OF ADVANCED MATERIALS TO CANNON PROD -----JUST FUNDED. NO 301 REQUIRED.-----								



**TROOP SUPPORT COMMAND  
(TROSCOM)**

## TRUUP SUPPORT COMMAND

## CURRENT FUNDING STATUS, 2ND CY85

FISCAL YEAR	NO. OF PROJECTS	AUTHORIZED FUNDS ( \$ )	CUMTRACT FUNDING		REMAINING FUNDING ( \$ )
			ALLOCATED ( \$ )	EXPENDED ( \$ )	
84	1	1,628,000	1,628,000	1,254,000 ( 77% )	4,000 ( 100% )
85	2	1,837,000	1,200,000	847,000 ( 70% )	637,000 ( 14% )
86	3	580,600	277,000	0 ( 0% )	303,000 ( 7% )
TOTAL	6	4,045,600	3,101,600	2,101,000 ( 67% )	944,000 ( 12% )

## AUTHORIZED FUNDING

## CUMTRACT ALLOCATED 77%

## INHOUSE REMAINING 25%

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM  
 SUMMARY PROJECT STATUS REPORT  
 2ND SEMIANNUAL SUBMISSION CY 85 RCS DRCMT-301

PROJ NO.      TITLE • STATUS

PROJ NO.	TITLE • STATUS	AUTHO- RIZED	CONTRACT VALUES (\$000)	EXPENDED LABOR AND MATERIAL (\$000)	ORIGINAL PROJECTED AND COMPLETE DATE	PRESENT PROJECTED COMPLETE DATE
E 84 3796	COMBAT VEHICLE DEPERMING PRODUCTION FACILITY		1,628.0	1,624.0	4.0	DEC 85
E 85 3796	COMBAT VEHICLE DEPERMING PRODUCTION FACILITY		1,167.0	1,050.0	94.5	DEC 85
E 86 3796	COMBAT VEHICLE DEPERMING PRODUCTION FACILITY		252.6	277.6	21.3	SEP 86
E 86 3802	HIGH STABILITY TRUSS CHORD		328.0			APR 86
E 85 3074	ADVANCED HARDENED SHELTER COST OPTIMIZATION		670.0	150.0		NOV 87
E 85 6074	ADVANCED HARDENED SHELTER COST OPTIMIZATION -----JUST FUNDED. NO 301 REQUIRED.-----					NOV 87

## **APPENDICES**

**APPENDIX I**

**ARMY MMT PROGRAM REPRESENTATIVES**

ARMY MMT PROGRAM REPRESENTATIVES

Department of the Army

ODCSRDA

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HQ, AMC

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5001 Eisenhower Avenue  
Alexandria, VA 22333-0001

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AV: 284-6748

AMCCOM

U.S. Army Armament, Munitions & Chemical Command  
ATTN: AMSMC-PBS-A (R) (Mr. Carroll Schumacher)  
Rock Island, IL 61299-6000

C: (309) 782-3517/3665  
AV: 793-3517/3665

U.S. Army Armament, Munitions & Chemical Command  
Armament Research and Development Center  
ATTN: SMCAR-PMP-P (Ms. Loretta Settles)  
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U.S. Army Armament, Munitions & Chemical Command  
Chemical Research and Development Center  
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U.S. Army Armament, Munitions & Chemical Command  
Production Base Modernization Agency  
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AMC School of Engineering and Logistics

ATTN: AMXMC-SEL-E (Mr. Mickey Carter)  
Red River Army Depot  
Texarkana, TX 75501

C: (214) 838-2001  
AV: 829-2001

AMETA

U.S. Army Management Engineering Training Activity  
ATTN: AMXOM-SE (Mr. Paul Wagner)  
Rock Island, IL 61299

C: (309) 782-4041  
AV: 793-4041

AMRDL

U.S. Army Applied Technology Laboratory  
Army Research Technology Lab (AVSCOM)  
ATTN: SAVRT-TY-ATS (Mr. J. Waller)  
Fort Eustis, VA 23604-5577

C: (804) 878-5921/2401  
AV: 927-5921/2401

AVSCOM

U.S. Army Aviation Systems Command  
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St. Louis, MO 63120

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AV: 693-3079/3080

CECOM

U.S. Army Communications & Electronics Command  
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AMSEL-PC-SI-I (Mr. Sada Barik)  
Fort Monmouth, NJ 07703

C: (201) 535-4926  
AV: 995-4926  
C: (201) 532-4035  
AV: 992-4995

DESCOM

U.S. Army Depot Systems Command  
ATTN: AMSDS-RM-EM (Mr. Mike Ahearn)  
Chambersburg, PA 17201

C: (717) 263-6591  
AV: 238-6591

HDL

Harry Diamond Laboratories  
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2800 Powder Mill Road  
Adelphi, MD 20783

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AV: 290-1551

LABCOM

U.S. Army Laboratory Command  
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2800 Powder Mill Road  
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MICOM

U.S. Army Missile Command  
ATTN: AMSMI-RD-SE-MT (Mr. Bobby Park)  
Redstone Arsenal, AL 35898

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AV: 746-2147

MTL

U.S. Army Materials Technology Laboratory  
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Watertown, MA 02172-0001

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RIA

Rock Island Arsenal  
ATTN: SMCRI-ENM (Mr. J. W. McGarvey)  
Rock Island, IL 61299-5000

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AV: 793-4142

TACOM

U.S. Army Tank-Automotive Command  
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Warren, MI 48397-5000

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AV: 786-6065

TECOM

U.S. Army Test & Evaluation Command  
ATTN: AMSTE-TC-M (Mr. Robert Brazzon)  
Aberdeen Proving Ground, MD 21005

C: (301) 278-3677/2170  
AV: 298-3677/2170/2375

TMDE

U.S. Army Test Measurement Diagnostic Equipment Support Group  
ATTN: AMXTM-S (Mr. Ken Magnant) C: (205) 876-1850/2575  
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TROSCOM

U.S. Army Troop Support Command  
ATTN: AMSTR-PT (Mr. Richard Green)  
4300 Goodfellow Blvd. C: (314) 263-2818  
St. Louis, MO 63120 AV: 693-2818

U.S. Army Troop Support Command  
Belvoir R&D Center  
ATTN: STRBE-CB (Ms. Betz) C: (703) 664-5174  
Fort Belvoir, VA 22060 AV: 354-5174

U.S. Army Troop Support Command  
Natick R&D Center  
ATTN: STRNC-EML (Mr. Bob Kelly) C: (617) 651-4899  
Natick, MA 01760 AV: 256-4899

WVA

Watervliet Arsenal  
ATTN: SMCWV-PPI (Mr. William Garber) C: (518) 266-5319  
Watervliet, NY 12189 AV: 974-5319

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